JANUARY
Vol. I 1932 No. 2

The UNIVERSITY OF TORONTO QUARTERLY

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SEEING THE INVISIBLE

A Faraday-Maxwell Centenary Lecture*

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I.

THE summer of 1931 has been a marked year scientifically in Great Britain because of the celebration of the centenaries of three events, namely, the formation of the British Association for the Advancement of Science, the discovery of induced currents by Michael Faraday, and the birth of James Clerk Maxwell, the mathematical interpreter of Faraday.

The British Association for the Advancement of Science was founded in York (1831) in an attempt to unify the work of a number of local scientific bodies scattered through Great Britain and Ireland. Its aims may be said to be threefold:—(1) the popularization and spread of scientific knowledge among the great mass of the people; (2) the maintenance of a scientific clearing house or court of last appeal which sets a seal on various scientific developments; (3) actual assistance to scientific work in various directions by the service of advisory committees and contributions of money for various investigations.

Without attempting to deal with its 100 years of history we are justified in saying that no other organization in the English-speaking world has had so great an influence on the spread of popular appreciation of scientific work and accomplishment—an influence which has become Empire wide.

From time to time the British Association meetings have been made epoch-marking by the first public announce-

*Delivered at the inaugural meeting of the Royal Canadian Institute, November 7, 1931.

ments of world-famous scientific discoveries. The advance which has been made during the last hundred years can be well illustrated by the change of attitude of the literati to scientific men. At the second meeting of the British Association (Oxford, 1832), the University conferred the honorary degree of D.C.L. on David Brewster, Michael Faraday, Robert Brown, and John Dalton—four scientists. The literary group represented by Keble was greatly upset, in the words of Keble, "at the temper and tone of the Oxford doctors; they had truckled sadly to the spirit of the times in receiving the hodge-podge philosophers as they did." Their anger was probably chiefly inflamed by the fact that the candidates consisted of two Presbyterians, one Quaker and one Sandemanian.

A striking historical coincidence has brought about the linking of the names of Faraday and Maxwell in the year 1931. One hundred years ago Faraday made his discovery of electromagnetic induction, a discovery paralleled by Henry in America, which has led to the whole modern development of electrical engineering in so far as it involves motors, dynamos and transformers. One hundred years ago Maxwell was born. The names of Faraday and Maxwell will always be connected; Faraday, the experimenter and the dreamer, Maxwell, the mathematician and experimenter, who translated into the language of the learned the dreams of Faraday. Great as are Faraday's contributions to our practical life, it is his attempt to enable us to see the unseen that will be counted as his greatest accomplishment and this accomplishment was brought to a glorious fruition by the work of Maxwell. Faraday and Maxwell are, in a sense, the Socrates and Plato of nineteenth century physics.

Before proceeding to deal with their main contribution to our knowledge, I should like to dwell for a moment or

two on the curious contrasts and similarities in their two lives.

Faraday was born in 1791 into the home of a poor London blacksmith who had migrated to the city from a Yorkshire village a few years before. The boy's early education was of the indifferent variety of the local school and the East London street. Maxwell, born in 1831, forty years later than Faraday, into the home of a well-to-do Scottish laird in the city of Edinburgh, was brought up in the tradition of the landed proprietor and educated at the best schools in the famous city of his birth. He attended the Edinburgh Academy and afterwards Edinburgh University, where he spent three years before proceeding to Cambridge, then, as now, the Mecca of mathematicians and physicists. At school, Maxwell was rather reserved and every inch the proverbial prodigy. At the age of fifteen he presented to the Royal Society of Edinburgh, through Professor Forbes of Edinburgh University, his first original paper, which was on a mathematical subject. At Cambridge, more or less contemporaneous with Thomson (Lord Kelvin), Stokes, Routh, Tait and Steele, he made a great name for himself, as a mathematician and physicist of the first rank.

Looking at Faraday's life, we see that other things supplied the place of college and university education. Called upon at the age of thirteen to go to work in order to help keep the family, he was engaged for one year delivering papers. He proved himself so dependable that he was apprenticed to the same employer as a bookbinder for seven years without payment of premium. Faraday was an omnivorous reader, particularly of scientific books sent for binding, and, during his apprenticeship, obtained his university training in the college of self-help. He apparently was not attracted in any way

to mathematics and to the end of his life was quite ignorant of even the elementary divisions of higher mathematics such as the calculus; at times, he was quite scornful of the claims of mathematicians.

Through his interest in chemistry he was led to attend Sir Humphrey Davy's lectures at the Royal Institution, London, and one year after the expiration of his apprenticeship he was taken on as laboratory assistant to Davy at the salary of twenty-five shillings per week.

At the age of twenty-two, Faraday graduated from bookbinder to laboratory assistant; forty years later Maxwell, at the same age, graduated from Cambridge University in the select circle of mathematicians who have from the earliest times made their university famous.

If anything ever was providential, it was the course of Faraday's life during the next two years. Sir Humphrey Davy, who had the good fortune to wed a Scottish widow of considerable means, decided to make a tour of the principal countries of Europe. Faraday was asked to go along as a scientific companion because Davy carried with him, as baggage, a miniature laboratory—balances, utensils, batteries, etc.—in order to repeat experiments which he might see from time to time during his visits. Force of circumstances changed Faraday's status into that of valet, which caused him many a heartburn. In his diary we read: "Finally, Sir H. has no valet except myself: but having been in a humbler station, and not being corrupted by high life, he has very little occasion for a servant of that kind, and 'tis the name, more than the thing, which hurts." I am afraid his position was not made any more comfortable by Lady Davy. During this extensive journey, Davy and Faraday were brought into close personal contact with all the leading scientific workers of western and central Europe, and undoubtedly, Faraday laid a foun-

dation for his future work which no university then or since could even hope to equal, let alone surpass. He returned to London with increased vigor and knowledge, and with enthusiasm to attempt any problem and ambition to make a name for the Royal Institution and for himself.

In spite of the dissimilarity in their birth and education, Faraday and Maxwell show a remarkable similarity in the simplicity which they both displayed not only in their wholehearted attachment to scientific pursuits but also in the ordering of their domestic and mental life. Neither of them ever sought for position, although they were both called to high positions, while both of them turned away from even pleasant pastimes to concentrate on the work in hand. In these days when many of us are perhaps too fond of recognition, it is amusing to read the following in one of Faraday's letters to a contemporary French scientist, de la Rive:—"Of late I have shut myself up in my laboratory and wrought, to the exclusion of everything else. I heard afterwards that even your brother had called on one of these days and been excluded. . . . . My paper was read to the Royal Society, I believe, last Thursday, for I was not there; and I also understand there have been notices in the Athenaeum, but I have not had time to see them and I do not know how they are done. . . . . ." This was in reference to an epoch-making discovery of the property of diamagnetism.

Similar coincidence in the lives of these two is found in the simplicity and sincerity of their religious beliefs. Faraday's family belonged to a very obscure church—the Sandemanians, an offshoot of the Presbyterian church in the middle of the 18th century, a church with no paid ministry and a very simple form of service. Faraday did not join the church until in his twenties, so that his deci-

sion was deliberately arrived at and faithfully lived up to in spite of the greatness that was thrust upon him in the scientific world. Maxwell was born into the Presbyterian church and retained throughout a very simple christian faith. On the very few occasions on which he was forced to be parted from his wife by duties, as e.g. that of outside examiner at Cambridge, it was arranged between them to read daily the same selection from the Bible and much of their correspondence at such times consisted in commentaries on such passages.

The article on Faraday in the Encyclopaedia Britannica (11th Ed.) is written by Maxwell, and that on Maxwell by Professor P. G. Tait, formerly of Edinburgh, and I think the remarks on the religious views of these two great men are worth quoting. In his article on Faraday, Maxwell quotes with manifest approval the following from a lecture by Faraday on mental education (1854). "I believe that the truth of the future (life) cannot be brought to man's knowledge by any exertion of his mental powers, however exalted they may be; that it is made known to him by other teaching than his own, and is received through simple belief of the testimony given. Let no one suppose for an instant that the self-education I am about to commend, in respect of the things of this life, extends to any consideration of the hope set before us, as if man by reasoning could find out God. It would be improper here to enter upon this subject further than to claim an absolute distinction between religious and ordinary belief. I shall be reproached with the weakness of refusing to apply those mental operations which I think good in respect of high things to the very highest. I am content to bear the reproach. Yet even in earthly matters I believe that 'the invisible things of Him from the creation of the world are clearly seen, being understood by the

things that are made, even His eternal power and Godhead'; and I have never seen anything incompatible between those things of man which can be known by the spirit of man which is within him and those higher things concerning his future, which he cannot know by that spirit."

As for Maxwell himself, Professor P. G. Tait, for many years occupant of the chair of Physics or Natural Philosophy at Edinburgh, writes:—"In private life Maxwell was one of the most lovable of men, a sincere and unostentatious Christian. Though perfectly free from any trace of envy or ill-will, he yet showed on fit occasion his contempt for pseudo-science which seeks for the applause of the ignorant by professing to reduce the whole system of the universe to a fortuitous sequence of uncaused events."

Not that I should in the least desire to convey the impression that these two great men chose the life of simplicity and steadfastness in scientific pursuits through any lack of knowledge of the prizes which the world offers or any lack of that sense of humour which always saves one from a ridiculous position. In the year 1829, Faraday very consciously turned away from the life of an expert scientific consultant, in a commercial sense, to what became almost a monastic life of research. When he deliberately turned away from the commercial aim, his income as a consultant was about £1000 per annum. For the rest of his life he had only the salary of £200 per year from the Royal Institution, and, for part of his later life, £200 as consultant to a government department. Maxwell's first position was Professor of Physics at Marischal College (Aberdeen)—a position which, after he had held it for a few years, was abolished, as the result of an amalgamation that took place in the reorganization of

Aberdeen University. Left without a post, he made no attempt to seek one but turned his undivided attention to the mathematical work which he had in hand. He was afterwards "called" to King's College, London, and later to be the first occupant of the Cavendish Chair of Experimental Physics in the University of Cambridge.

Faraday and Maxwell were at all times full of fun, each in his own way. Maxwell retained to the end of his life his boyish pleasure in writing poetic skits on various events; his correspondence with Tait and Kelvin being full of these effusions. After occupying the chair at Aberdeen for a few months, he wrote to a friend: "No jokes of any kind are understood here; I have not made one for two months and, if I feel one coming, I shall bite my tongue." Faraday's sense of humour is very well illustrated by an answer made to the great Gladstone, at the time Chancellor of the Exchequer, who asked, as so many have asked before and since: "What is the practical use of this invention?" According to tradition, two answers were given by Faraday; one was the counter-question: "Of what use is a baby?" the second and better answer, "Well, sir, some day you may be able to tax it."

II.

Our present problem may be stated thus: "What brought together two men of such divergent upbringing as Faraday and Maxwell in such a way that we hardly think of one apart from the other?" At the time of Maxwell's graduation at Cambridge we see the young man, at the age of twenty-two years, fully equipped to become the champion of the elderly man of sixty-two, Faraday, who had won the place of a leader in the scientific world.

In the study of natural phenomena, we are merely

dealing with things which we can handle,—chairs, tables, cups, water, books, etc., etc.—both solids and liquids; we say they occupy space and our fundamental experience with them is that they require what we call force to move them. But we find that under certain circumstances motion takes place without any effort from us and we are then led to study the laws of motion and enquire into the question, "Why things move?" At first this experience has to do only with liquids and solids, but, in time, we come to find that there is another form of material which we usually cannot see—the form of gas—which also occupies space and can exert a force.

Our study of the laws of motion and of what we call force culminated in the wonderful discovery of Sir Isaac Newton, whereby he showed that the earth and the planets are held in their courses about the sun for exactly the same reason that an apple falls to the ground when released from the tree. We have the "Law of Universal Gravitation" enunciated by Newton, viz., "that every particle of matter in the universe attracts every other particle in the universe with a force which varies directly as the product of the masses and inversely as the square of the distance between them."

Of course, the statement of this law does not tell us anything about "why" each particle in the universe attracts every other particle; it merely tells us that there is an attraction. However, as a result of Newton's and Galileo's work there has become fixed in our minds the idea that each particle of matter is itself a mysterious centre of force which has the power of exerting a force on a second particle, also a centre of force, without anything going on in the space between the particles. We are brought then to the conception of "action at a distance." For example, the mutual attraction between the sun and

the earth keeps the earth in its definite orbit about the sun, and we are not accustomed to consider whether or not this is due to something going on in the space between the sun and the earth. We tacitly accept the theory of "action at a distance."

Now Faraday was never content to accept this view. In one of his papers he uses these words:[1] "You are aware of the speculation which I sometime since uttered respecting the view of the nature of matter which considers its ultimate atoms as centres of force and not so many little bodies surrounded by forces, the bodies being considered in the abstract as independent of the forces and capable of existing without them. In the latter view, the little particles have a definite form and a certain limited size; in the former view, such is not the case, for that which represents size may be considered as extending to any distance to which the lines of force of the particle extend; the particle, indeed, is supposed to exist only by these forces, and where they are, it is." Those familiar with the latest speculations regarding the ultimate structure of matter will at once realize how modern Faraday was.

Faraday was undoubtedly led to this view of the relation of matter and force through his far-reaching experimental work in electricity and magnetism; in those two fields we have forces both repulsive and attractive, as is familiar to all. The study of the laws regulating these forces have been fully worked out by the mathematicians on the view of "action at a distance", i.e. treating each charged body or magnet as though it were a centre of force, which had the power of acting at a far point, quite irrespective of the nature of the surrounding space.

Faraday was first struck with the idea that the space

[1]Philosophical Magazine, 3, xxviii, p. 345, 1846.

round about must have some important part to play while considering the action of a magnet on iron filings. The position of a small iron filing shows the direction of the magnetic force at each point: but Faraday believed that these lines of filings show more, show in fact that there really exists in space some peculiar phenomena which in the space itself account for the attractions and repulsions. Similar experiments can be performed with electrical charges which show that here, too, the condition of the space about the charged bodies is the important thing and not the state of the body itself. That is, as far as the electrical or magnetic phenomena are concerned, "the size of the charged body or the magnet may be considered as extending to any distance to which the lines of force of the charge (or magnet) extend; the charged body (or magnet), indeed, acts as though it existed only by these forces, and where they are, it is."

III.

Our inherent ideas of what we call empty space come down to us from the ancient philosophers. For example, the ideas of Democritus were: movement and plurality being necessary to explain the phenomena of the universe and impossible without space (Not-Being or void), he asserted that the latter has an equal right with Being to be considered as existent. Being is the full (plenum); Not-Being is the void (vacuum), the infinite space in which moves the infinite number of atoms which are eternal, invisible, and absolutely small. The void according to Democritus, extends inside of bodies—or, in other words, matter consists of small particles separated by spaces. We always suffer under the disability that matter appeals directly to the senses while "void" does not.

Faraday, like Maxwell, belonged to the school of

physicists who attempt by means of models to arrive at a rational idea as to the "how" of the various actions which they conceive as taking place; he consequently assumed the existence of a subtle medium coextensive with the "void," or empty space. Maxwell was thoroughly a convert to Faraday's ideas and set it as his life work to explain the actions taking place in Faraday's ideal medium. In his epoch-making treatise on Electricity and Magnetism, Maxwell says, "I intend to make Faraday's book the backbone of all the rest, as he himself is the nucleus of everything electrical since 1830 . . . . . If by anything I have here written I may assist any student in understanding Faraday's modes of thought and expression, I shall regard it as the accomplishment of one of my principal aims—to communicate to others the same delight which I have found myself in reading Faraday's Researches."

We have the suggestion that electricity and magnetism are phenomena taking place in a medium extending throughout all space. However, at the time, these were not the only phenomena for which a "medium" had to be created; for many years previously *light* had been looked upon as a wave-motion in such a medium—the so-called *aether of space.*

To quote Schuster,[2] one of Maxwell's first advanced students:—"Green, (Hamilton) and Stokes treated the problem of light as one of elasticity, by assuming no properties of the aether beyond those which we know elastic solids to possess. . . . . While the elastic solid theory of light was being developed by the great mathematicians of the first half of the last century, Faraday's genius gave us a new and lofty standpoint for the outlook on electrical and magnetic phenomena. Whether his treatment of electrical action, as transmitted through a medium, per-

[2]The Progress of Physics, 1875-1908, p. 39.

meated the scientific mind and affected contemporary thought, is difficult to decide, but at any rate it convinced Maxwell and that was sufficient.

"The strongest of our scientific *instincts* is our ultimate belief in the simplicity of nature. If both light and electrical (and magnetic) attractions are transmitted through a medium, it would revolt our feelings—that is to say, our non-reasoning faculties—to assume, without strong evidence to the contrary, that two *different* media exist for the two manifestations. But while it is possible to explain light by means of a medium having the properties of bodies known to our senses, this medium failed at the same time to explain electrical (or magnetic) actions. Maxwell's genius inverted the problem. He asked himself what the properties of a medium should be in order to account for the transmission of electromagnetic effects, and he then discovered that such a medium would transmit waves with a velocity of propagation exactly equal to that with which light was known to be transmitted. Hence any medium which could explain electrical action could also explain light. This is Maxwell's great achievement and the foundation of the electrodynamic theory of light." It also gave a theoretical justification for a belief strongly held by Faraday and, indeed, experimentally proved by him, that light itself was an electromagnetic phenomenon.

Unfortunately, Maxwell and his pupils did not seem to realize fully the necessity of an experimental proof of a corollary of such a theory: namely, that one should be able to propagate an electromagnetic disturbance producible in the laboratory through space with the velocity of light. In other words, to show experimentally that electrical and magnetic influence did not travel infinitely fast as is demanded by "action at a distance," but with a

finite, though very great velocity—that of light, 186,000 miles per second.

To quite Schuster[3] again: "In the meantime Helmholtz, always on the alert on the side of progress, suggested to his pupil, Heinrich Hertz, to take up the experimental investigation of the problem. Everybody knows the splendid manner in which Hertz accomplished this task: how he overcame the formidable experimental difficulties and succeeded in convincing the scientific world of the truth of Maxwell's theory." The necessity of some such experimental demonstration had been considered by the Cambridge group but they were lulled into inaction on account of the very faith they had in the correctness of their master's theory.

We are now all more or less familiar with the development succeeding Maxwell and Hertz: one needs only to recount the succession: Lodge, Marconi, Fleming, de Forest, and so on, to bring to mind the wonderful developments of wireless communication, all fundamentally based on the work of Faraday and Maxwell.

IV.

The aether has always been a troublesome medium; it is in reality a mental abstraction, "such stuff as dreams are made on." When we find indications of something going on in space (void or vacuum) our inherent tendency is to say that there must be some kind of substance in which such action can take place. So we say that the aether must possess such and such properties. But our only excuse for saying that it exists is that we think we need it.

The essential action that does take place in space is a vibratory motion; even the action of one electrically

[3] *loc. cit.*, p. 45.

charged body on another involves the motion of a pulse from one place to another with the velocity of light. "The two essentials to periodic movement," in the words of Lodge, "are space and time: so it has become the fashion to speak of space-time as the equivalent of aether, void, vacuum, and even the original single term space. The universe is now regarded not as an assemblage of material molecules interrupted by empty space but rather as a great region (a great workshop) of space-time, interrupted here and there by a particle of matter." Not only is this conception to be held with regard to the universe and large masses of matter, and with regard to small masses of matter and their constituent molecules, but even with regard to the structure of the atom itself.

Now if we revert for a moment to Faraday's objection to "action at a distance," we find his reasoning dominated by the conviction that there must be "contact" between body, medium and body in order to cause the actions which we observe. But the consideration of the structure of atoms shows us that we never get actual contact of what we can call matter with matter: it is this which brings us back to the words of Faraday. "The particle, indeed, is supposed to exist only by these forces, and where they are, it is." In fact, we are brought to this position, to quote Lodge again: "Gradually we have come to the conclusion that the atoms of matter and of electricity have no motive power of their own but that they are obedient to the resultant forces that act upon them: in other words, that they take the path of least resistance, and simply drift wheresoever they are urged. True, the urging may be due to, or in consequence of, the existence near them of other masses of matter, but the urging is done by a machinery which is not mechanical, but rather aethereal, that is to say, by the state of the

space or medium in which the particles find themselves." In fact, what we call the mass of a particle does not belong to the particle as such, but is a property of the space around it.

Any interaction of particle on particle, however mild or however explosive, is essentially due to something going on in space round about the ultimate particles. An immense amount of work has been done in recent years in an attempt to explain why so-called chemical actions take place and, in every case, such phenomena point to some action taking place in the medium round about the particles of matter.

As a consequence of such considerations we may say that any motion of particles or magnets or electrically charged bodies that we see is then merely an indication of something going on in the medium; just as when we see the whirl of dust on the country road on a hot summer's day, we are told of a small whirlwind taking place in the atmosphere. The music or words coming from the loud-speaker of the radio are merely an indication that some disturbance has been travelling through space from station to station. Even the motion of electrons in a wire bearing a current is just a material indication of something going on in the medium round about. Calculation shows that even for a current intense enough to melt a copper wire the motion of the electrons is only at the rate of about one cm. per sec., whereas the medium impulse travels along at the rate with which light travels. When the operator in the power house at Queenston turns on the switch connecting that station with Toronto, the electrons are set in a comparatively leisurely jostle, but the message and the energy have whizzed away to Toronto through space around the transmission wires in less than 1/2000 of a second.

As for gravitation, we sincerely believe that it is electrical in its nature, since all matter is ultimately electrical: consequently gravitational force impulses travel through space not with infinite velocity but with that of all electromagnetic waves.

At the recent Maxwell celebration in Cambridge Einstein used words which may serve as a conclusion to the foregoing. "We may say that, before Maxwell, Physical Reality, in so far as it was to represent the processes of nature, was thought of as consisting in material particles, whose variations consist only in movements governed by partial differential equations. Since Maxwell's time, Physical Reality has been thought of as represented by continuous fields, governed by partial differential equations, and not capable of any mechanical interpretation. This change in the conception of Reality is the most profound and the most fruitful that Physics has experienced since the time of Newton."

V.

A very interesting suggestion has been recently thrown out by Sir Oliver Lodge[4] as to the bearing of such considerations on the problem of life processes themselves. There have always been long and animated debates carried on among biologists as to whether (1) there is some energy peculiar to life—biotic energy—which we do not find apart from life, or (2) there is nothing in life except physics and chemistry. Lodge very pertinently points out that life is not a form of energy but life directs the use of energy which it finds available. On occasion life processes do proceed in apparent opposition to known laws of physics and chemistry; that is, energy has been for-

[4]Hibbert Journal, April, 1931.

cibly detoured into unusual paths. To quote only two examples: the pressure of air in the swim bladder of the fish is of the order of a hundred atmospheres, pumped up from a supply in the surrounding fluids of about one-tenth of an atmosphere: again, the concentration of hydrochloric acid in the stomach is very, very much higher than the concentration of this acid in the surrounding region. Such reactions seem to move with a purpose so that biologists are now suggesting that there is about particles taking part in life a bio-field or life-field, something similar to electrical, magnetic or gravitational fields, which dominates the way in which actions take place. We have many very simple examples of such action: cuts heal in higher organisms; in lower organisms, e.g. in the newt, new limbs are grown or a tail bud of a newt when transplanted may become a leg; a starfish, divided in two, grows two new halves. In these various cases, the growing cells take on new duties on account of some urge, which leads McBride to suggest a bio-field—an action in the medium surrounding the particles of matter composing the cells.

The part which the brain plays in the higher animals suggests that it is possible to alter through the action of the brain that urge which regulates life processes. I need only refer to the very interesting address of Dr. Harvey Cushing, the Lister memorial lecture at the University of Toronto, 1931, as a recent exposition of this wonderful action of the brain as a director of life processes.

This idea is substantiated by the two following quotations from workers in diverse physiological and psychological fields. In the early part of his book, "Adventures in Bio-physics," Professor A. V. Hill says:—"*Life* in the physico-chemical sense must be regarded as a self-perpetuating and generally periodic complex of events,

recognizable by its results, not by its outward appearance at a given moment, occurring indeed in a medium of matter, depending absolutely on the properties of matter, but as distinct from matter as music is from the air in which it is propagated. From the dynamic point of view the energy required by a resting cell is used in "driving" the sequence of invisible events which make up life. To break the continuity of these events for more than the shortest time is like wetting a short length in the powder train of a fuse; normal reactions may cease altogether to be propagated and *life* may end. . . . . .

"In the living cell there are, undoubtedly, many highly reactive substances, which proceed to react (to destroy life) as soon as they are given the opportunity. The opportunity may come either (1) when the cell is injured by mechanical or chemical means, when in fact the surfaces of separation are positively broken . . . . .; or (2) when, by oxygen want or by deprival of energy-liberating substances, the surfaces of separation can no longer be maintained in their normal orderly state. One is led, therefore, to think of oxidation in the healthy resting cell as employed in maintaining a certain dynamic *status quo.* in which highly reactive substances are confined to their proper spheres of action, hindered—so to say—from unsocial conduct, utilized in an organized scheme of things instead of being permitted to behave at random. . . . . We may think of a house, or perhaps better, of a business or a city, in which the normal architecture, the normal services, and the normal economic organization can be kept up only by expenditure. So long as these exist, ordinary life is possible: the inhabitants can go about their lawful business. Remove, however, the normal services and restraints and chaos rapidly sets in,

all kinds of reactions occur which are usually prevented, and recovery may become slow or impossible."

An idea somewhat similar to Lodge's suggestion of life as a directing of energy appears in a recent address by Professor C. S. Myers[5] before one of the sections of the British Association "On the Nature of the Mind," as follows:—"We cannot hope to localise any act of consciousness or any conscious content or feeling in some small region of nervous substance. . . . . The fundamental purpose of consciousness is the preservation of the organism by guidance and direction. On the physical side we can form no conception of that activity, throughout life and mind, which distinguishes evolution (in the general sense of growth?) from the blind running down-hill of a wound-up mechanism. We can at present find no metabolic basis for creative, directive activity; it appears, however, as if mental work makes far greater physiological demands than it should, according to the purely physical considerations of mechanical energy. Both mechanical and directive activities are essential to conceptions of the struggle for existence and the conservation of the self. Mental activity involves the quintessence of the non-mechanical directive activity of life. . . . ."

It seems to me, then, that the greatest contributions of Faraday and Maxwell to human welfare are not found in the dynamos and motors and electric lights and radio, but in making us realize how even the highest pleasures of life are due to reactions in some mysterious medium of space which even regulates our lives. When we listen to the strains of beautiful music, we are conscious that the whole comes to us in the form of a complex wave motion taking place in the air about us, received and transformed by our ears and brain into exquisite sensa-

[5]Nature 128, Oct. 31, 1931, p. 744.

tions. When we view a wonderful picture or drink in the beauty of a natural panorama, we believe there comes to us energy in the form of a wave motion of almost infinite complexity, traversing space with almost infinite velocity, which is translated by our eyes into pleasurable sensations in the brain. May it not be that when we view a life, whose story enthralls us, we are viewing the action of those directive life forces which, properly responded to or encouraged by the individual, have produced a wonderful panorama of great human beauty. May there not after all be some great hidden meaning in the saying: "I am come that they might have life, and that they might have it more abundantly."

INDIAN PREHISTORY AS REVEALED BY ARCHAEOLOGY

DIAMOND JENNESS

ALTHOUGH the many diverse languages and customs of our Indians suggest that Canada was occupied for countless centuries before its discovery by Europeans, the remains of its prehistoric inhabitants are seldom conspicuous, and in many districts hardly discoverable even with careful research. There are no architectural ruins similar to the cliff dwellings in the southwest of the United States, the stone temples, walls and highways of Central America and Peru, or the brick and stone monuments of the Old World. Stone entered into the construction of dwellings only on the Arctic and sub-Arctic coastlines, where alone we find habitations, still partly intact, that lead us back to the centuries preceding Columbus. The bark wigwams of the eastern Indians were impermanent structures frequently dismantled and removed to another site, and the skin tents of the plains' and Mackenzie River tribes left no marks except circles of stones or faint depressions in the soil. West of the Rocky mountains, and in southeastern Ontario, the Indians occupied the same village sites for several years in succession; but even in these regions few traces of their dwellings remain, because the wood of which they were built rapidly disintegrated with the moisture and changing temperature.

Yet if Canada is not wealthy in prehistoric remains it is by no means barren. Even though the ancient dwellings have disappeared with hardly a trace, though most of the implements and utensils used by the earlier Indians have fallen into dust, many objects have been preserved that help us to reconstruct their history. Wood, horn,

and skin may often have disintegrated, but bone, antler, stone, pottery, ivory and shell remain, and although the story they tell is partial and one-sided, we can often fill in the gaps from our knowledge of the historic Indians. The kitchen-middens on both the Atlantic and the Pacific coasts contain not only the empty shells of the molluscs on which the aborigines feasted, but objects of stone, bone and native copper that were either discarded or lost when they moved away. The old village sites in southeastern Ontario and along the St. Lawrence river contain in addition amazing quantities of broken pottery, and pottery (which, though fragile, is almost indestructible) appears near the international boundary in all three prairie provinces. The dry soil along the Fraser river in the interior of British Columbia has preserved fragments of cord-woven basketry that generally crumbled to pieces in more humid regions. Thus the southern parts of Canada possess many valuable relics of the distant past; and though the northern interior is almost barren, the Arctic and sub-Arctic coastlines where the floors of the old dwellings remain perpetually frozen beneath the surface soil rival in the abundance of their treasures the richest sites anywhere in America.

Graves, though generally less fertile than village or camping sites, have in many places yielded valuable remains. Much of our knowledge of the Beothuk Indians of Newfoundland comes from the implements they deposited in caves and rock-shelters beside their dead. Burial customs varied greatly in different parts of Canada. Wherever cremation was common, as on the Pacific coast, or the dead were laid on scaffolds or on the surface of the ground, comparatively little has survived. But stone cairns and shell-heaps often contain both human and other remains, and in south-eastern Ontario the plough

of the farmer has exposed many pits or ossuaries where the Iroquoians had deposited the bones of their dead with the tools and utensils that they had used in life.

The Indians have left other records of their ancient occupation, in addition to dwelling places and graves. In British Columbia, and more rarely on the prairies, there are petroglyphs or boulders sculptured with strange designs about which the present natives know nothing. Commoner still are pictographs or rock paintings, many also prehistoric, although some on the upper Fraser river and perhaps elsewhere were made as late as the nineteenth century. Then there are traces of old quarries where the Indians mined their soapstone, chert and other minerals, old trails over which they wandered, stone cairns, food-caches and fish-weirs that were constructed before the white man came. Finally, explorers travelling in the Arctic archipelago far beyond the historic range of any Eskimo tribe now extant, have found stone dwellings and tent-rings, graves and caches, on Melville, Bathurst and other islands, even in the extreme north of Ellesmere island within eight degrees of the north pole.

Archaeological investigations, however, face at the outset a very serious difficulty; for the aborigines, familiar with no writing except picture-writing, have left behind no literature which might help to fix the dates of these various remains. We may know from the ignorance of the present day natives concerning their origin, and from the absence of any iron tools, that they antedate the arrival of Europeans two or more centuries ago; but this hardly begins the enquiry. In other parts of the world we can sometimes determine the approximate period of a ruin through the presence of objects imported from a country whose history is already known, as when we find in Cretan house-sites ornaments that were peculiar to

well-established dynasties of Egypt. But Canada, like the rest of the American continent, seems to have been entirely cut off from the civilization centres of the Old World until the end of the fifteenth century,[1] and any foreign objects its soil contains are either intrusions from the United States, where their origin and date are hardly less obscure, or else of recent introduction, like the Chinese coins that are occasionally unearthed near Vancouver and other places, and the bronze figurine from northern India that was dug up at Kincolith, on the Nass river, some twenty-five years ago.[2] The only possible starting point, then, for the elucidation of the earlier history of our aborigines is the appearance of Europeans on the scene, of Jacques Cartier on the east coast in 1534, and of Russian, Spanish, and English navigators and fur-traders on the west coast in the eighteenth century. For Europeans brought iron tools and weapons that instantly replaced most of the stone implements previously in use, and archaeological sites from this and subsequent periods invariably reflect the change.

In the absence of historically fixed dates for pre-European times the Canadian archaeologist must fall back on the slender evidence afforded by changes in the geological or biological conditions. Thus in some parts of Canada, notably in the Arctic, the coastline has risen thirty or forty feet since certain dwelling-sites were deserted, and several inches of soil have accumulated over their ruins. Such conditions indicate the lapse of many centuries, but unfortunately we cannot determine the rates at which the coast-line rose or the soil accumulated, and therefore cannot measure the interval in years. To

[1]The transitory visits of the Norsemen to the east coast of Canada about the year 1000 A.D. appear to have left no impression on the aborigines.

[2]Boas, F. A Bronze Figurine from British Columbia. Bulletin of the American Museum of Natural History, Vol. XIV, 1901, pp. 51-52.

find one ruin resting directly on top of another (as in so many Mediterranean sites) is extremely rare; but provided that soil, vegetation and other conditions are similar, we may logically assume that a site buried 18 inches beneath the ground is older than one buried only 12 inches, and by this criterion we can occasionally determine the sequence of remains within a restricted area. Certain archaeologists have attempted to calculate the antiquity of the shell-heaps on the coast of California by estimating the probable population of the sites and the number of empty shells an Indian would throw out each day; but such a method seems impracticable, in Canada at least, where we can neither estimate the probable population nor the proportion of shell-fish in the native diet. We can, however, obtain the minimum ages of a few heaps by examining the forests that have covered them since their formation. "In 1897 there stood on one heap that was eight feet high the stump of a Douglas fir that showed over four hundred annual rings. This heap must have been abandoned before 1497; before an earlier date still, in fact, because there was a second stump on it larger and presumably older, although its rings could not be counted because the centre was hollow. A Douglas fir cut down on another and higher shell-heap many years ago showed four hundred and twenty annual rings, so that this heap was abandoned before 1500. We know neither how many years had elapsed between the abandonment of these shell-heaps and the growth of the trees, nor the rate at which the shell-heaps themselves had accumulated; but if the upper layers are at least 400 years old, the lower ones must be considerably more ancient. There seems no reason to believe that the two shell-heaps just described are the oldest along this coast. Others may be centuries older, preceding perhaps the Christian era. We

may derive from tree-growths minimum dates for a few, but unless we can obtain some geological indications, there seems little hope of discovering the true age of any heaps except the most modern."[3]

Let us now examine each region in turn and see what light archaeology has been able to throw on its inhabitants during the long dark period that preceded the coming of Europeans. We will begin our survey with eastern Canada. In Nova Scotia, New Brunswick and Prince Edward island, prehistoric shell-heaps, camping sites and graves reflect almost the same culture as that of the Algonkian tribes who occupied this region in the seventeenth century. The coastal shell-heaps, however, rarely if ever contain gouges or grooved axes of stone, both of which are fairly common in the interior; and since these objects do not occur in post-European sites it seems possible that they indicate the habitation of the province by some earlier tribe than the Micmacs and Malecites who linger there to-day. The abundance of pottery in the prehistoric shell-heaps supports this hypothesis, for none of the early writers appears to mention its presence except Lescarbot, who says, without stating his authority, that it had formerly been used by the Micmac, but discontinued before his time.[4] We should remember, on the other hand, that there are no detailed accounts of the maritime Indians before the seventeenth century, when they had already been in contact with Europeans for a hundred years, so that Lescarbot may be quite correct in believing that pottery had disappeared in the interval even though it lingered for a much longer period among the Iroquoians. We may conjecture, too, that the natives

[3]Smith, Harlan I. Kitchen-Middens of the Pacific Coast of Canada, Bulletin No. 56, National Museum of Canada, Ottawa, 1929, p. 46.

[4]Lescarbot, Marc. The History of New France, The Champlain Society, Vol. III, p. 195, Toronto, 1907.

had little use for gouges and grooved axes at the seashore, and therefore left them inland at the winter hunting-grounds; although in that case we might reasonably expect to find one or two stray specimens in the shell-heaps. But then the rarity of stone or pottery pipes, both inland and on the coast, again arouses our suspicion that there may have been an earlier population, for it suggests that smoking was a new trait but lately introduced into the Maritime provinces from the Iroquoians to the west. Such pipes as have been found closely resemble Iroquoian types,[5] indicating that either the Iroquoians or the Maritime Algonkians, perhaps both, were newcomers into southeastern Canada. There the problem rests to-day, and we must leave it unsolved pending further excavations.

None of the Maritime remains hitherto excavated bear any indications of great antiquity,[6] nor can we prove with certainty that Algonkian or any other tribes had occupied this region more than a century or two before the coming of Europeans. A grave at Redbank, in Northumberland county, New Brunswick, contained burnt human bones and a number of stone implements deeply stained with red ochre like the remains of the mysterious "Red Paint" people in the neighbouring state of Maine,[7] although the implements themselves in no way resembled "Red Paint" types. On the other hand, knobbed gouges, plummets, adze blades and long slate spear points of typical "Red Paint" forms have been unearthed in various parts of New Brunswick and Nova Scotia, but neither associated with deposits of red ochre nor in circumstances that would indicate great antiquity. It seems safer, therefore, to

[5]The special pipe developed by the Micmacs appears to be post-European.

[6]The shell-heaps are much smaller and shallower than those on the coast of Maine.

[7]For these "Red Paint" people, see Moorehead, W. K., *Archaeology of Maine*, Andover, Massachusetts, 1922. Moorehead claims for them great antiquity.

regard these specimens not as the work of a distinct people, but as local variants from the more usual Algonkian forms. Altogether, archaeological investigations in the maritime provinces have been singularly disappointing. They have elucidated some obscure features in the culture of the inhabitants that were not recorded by the early missionaries and explorers, but they have failed to prove conclusively any occupation whatever of this area before the eleventh or twelfth century A.D.[8]

Archaeology has been a little more successful in the lowlands of the St. Lawrence river valley, where we find two kinds of prehistoric village remains. In the one, besides the usual stone axes, bone awls, and other implements, there are fragments of clay pots that had rounded bases and overhanging or cornice-like rims, curved pipes made of stone or earthenware frequently carved or modelled into human, bird or animal forms, and now and again an ornament made of shell. Many of the arrow-heads are of bone or antler; those of chipped stone are sometimes equipped with barbs or stems, but more often, perhaps, present the outline of a simple isosceles triangle.[9] The pottery, too, has been modelled into shape, not built up by the alternative method of coiling.[10] Sites with these remains persist into European times, when shell beads become more numerous and iron knives and axes appear. We recognize them as the village-sites of an agricultural people, because the refuse deposits always contain charred corn and beans; and we can be certain, too, that they

[8]It is scarcely credible, nevertheless, that it was entirely uninhabited before and for several centuries after the beginning of the Christian era.

[9]In New York the triangular forms predominate almost to the exclusion of the other types (Parker, A. C., "Origin of the Iroquois," American Anthropologist, n.s. vol. XVIII, 1916, p. 484). On the other hand, stone drills are rare or lacking in Iroquoian sites south of the border, but not uncommon in Ontario. They are very plentiful in Algonkian sites.

[10]For a description of Huron pot-making, see Sagard, T. G. Histoire du Canada, Vol. 1, p. 260, Paris, 1866.

mark the locations of Iroquoian settlements, for some of them are actually mentioned by the early Jesuit missionaries, although the majority were abandoned before their time.

The second group of sites yields very different remains, which we can likewise identify as typical of the Algonkian tribes in northeastern America. Arrowheads of bone are here very scarce, and those made of stone are more frequently barbed or stemmed than triangular. The pots, of inferior texture, are manufactured by the coiling process as often as by modelling, and are without collars or overhanging cornices. Pipes and shell ornaments seem rare, but in their place are occasional objects of copper, and many stone implements not present in Iroquoian remains, such as gouges, grooved axes, pestles shaped like bells or cylinders, and polished ornaments that according to their form are classified into gorgets, banner-stones and amulets.[11] All these Algonkian sites are prehistoric, revealing no traces of European contact; and since many of them lie in what was Iroquoian territory in the sixteenth century, we know that they must precede the Iroquoian occupation of the St. Lawrence lowlands, even although as yet we have found no actual superimposition of remains. There are no storage pits for grain on these Algonkian sites, nor any indication that their inhabitants were acquainted with the cultivation of maize. Both agriculture and smoking, therefore, seem to have come into southeastern Canada through the Iroquoians.

At what period, then, did the Iroquoians reach the St. Lawrence valley? Parallel discoveries south of the international boundary, and a close study of the culture, traditions and dialects of their various tribes, tend to fix

[11]The few two-holed gorgets discovered on Iroquoian sites were probably derived from the Algonkians.

the date at around 1300 A.D. Parker would bring them from the Ohio valley to the Detroit or the Niagara river, where he believes they split into two branches, one, the ancestors of the Hurons, Mohawks and Onondagas, moving along the northern shores of lakes Erie and Ontario; the second, which later separated out into the Seneca, Erie and other tribes, traversing the southern shores.[12] Other authorities prefer to suspend judgment on the movements and cultural groupings of the various tribes pending the results of further investigations.[13] Meanwhile, Wintemberg has dispelled one illusion by finding an Iroquoian camping-site as far east as Kegashka, beyond the Natashkwan river; for his discovery proves that the prehistoric Iroquoians controlled not only the valley of the St. Lawrence river but a considerable portion of the gulf, and that the party met by Cartier off the Gaspé coast was not, as is commonly supposed, a mere scouting expedition cruising in unknown waters.

The Algonkians who preceded the Iroquoians, like those of the Maritime provinces, were pottery-makers, although their kindred north of the St. Lawrence watershed used vessels of birch-bark for cooking their food. Parker has discovered at Lamoka, in the state of New York, a stratified refuse heap left by two distinct peoples, the lower deposits by a long-headed tribe that knew no pottery, the upper by a round-headed tribe with pottery.[14] He estimates the antiquity of the heap at from two thousand to four thousand years, which is very much greater than a reasonable estimate for any site yet discovered in eastern Canada. We have not found, indeed, any site in the lowlands of the St. Lawrence where pottery

[12]Parker, A. C., *op. cit.*, p. 483.

[13]*Cf.* Skinner, A., "Notes on Iroquois Archaeology," Indian Notes and Monographs, Museum of the American Indian, Heye Foundation, pp. 21ff., New York, 1921.

[14]Parker, A. C., American Anthropologist, n.s. vol. 30, 1928, pp. 515-6.

is absent, except a small and rather insignificant camping-place at Red Mill, near Three Rivers. Yet we are confident that pottery was not an independent invention of the Algonkians, but came to them from more civilized tribes to the south. Possibly it was introduced from the mound-building tribes in the Ohio valley, for there are graves and mounds in Ontario that contain gorgets of shell and stone, copper axes, awls and beads similar to specimens that have been unearthed in Ohio, Indiana and other parts of the United States. Only a few of these remains have been excavated by trained investigators, so that while we are certain that they belong to the prehistoric period, we cannot actually prove that they precede the Iroquoian occupation of the province.[15] Several of the graves, we may note in passing, contained considerable quantities of red hematite, like the grave at Redbank in New Brunswick. But red was a favourite colour with the Indians in many parts of North America, so that we should not attach too great significance to this feature.

The prairie provinces and the basin of the Mackenzie river have proved barren fields for the archaeologist, apparently because their inhabitants have always been migratory peoples who never stayed long enough in one place to leave extensive remains. In the southern parts of the prairie provinces are burial mounds similar to those of Dakota and other states to the southward. They contain, besides a few human bones, fragments of crude pottery, shell beads and other stray objects already recorded by early explorers of the plains, so that they add very little to our knowledge. Stone cairns and circles of stones that held down the edges of tents are numerous from the international boundary to the Arctic ocean, but

[15]Wintemberg, W. J. Artifacts from Ancient Graves and Mounds in Ontario. Transactions of the Royal Society of Canada, Third Series, vol. XXII, section II, pp. 175-202, Ottawa, 1928.

many of them are quite recent, often no older than the present century. Occasionally we find tent-stones so covered with lichens or buried in the turf that we feel sure they date from pre-European times, but digging reveals nothing except perhaps a few flakes of chert or quartzite. The plough of the farmer often turns up a grooved stone hammer or a tubular stone pipe which we recognize as characteristic of the plains' region, and here and there one stumbles on long rows of boulders that, mosaic-like, trace out some geometrical design or a human or animal figure. But nowhere have archaeologists found evidence of other inhabitants than those of the present day, or traces of even their occupation earlier than a century or two before the arrival of the white man.

The village sites, graves and camping places in the valleys of the Thompson and Fraser rivers, and the innumerable shell-heaps or kitchen-middens that fringe the coast-line of British Columbia, have been investigated sporadically for half a century. The shell-heaps vary in length from a few yards to one or two miles, and in depth from a few inches to nine feet. The smaller ones are often entirely modern, and a few of the larger ones have grown within the last hundred years, for the Indians of this region still consume large quantities of clams and cockles; but the giant heaps now buried in dense forest certainly date from many hundreds of years ago, in some cases perhaps even thousands.

One would naturally suppose that in such a region archaeologists could find a sequence of remains that would permit a reconstruction of the cultural history back to and beyond the beginning of the Christian era. Yet the researches of fifty years have added very little to our knowledge. No doubt difficulties of excavation have militated against any great success. No archaeologists

have ever possessed funds enough to remove a heavy stand of timber, and then excavate carefully, layer by layer, a solid mass of refuse and earth measuring perhaps three hundred yards long, seventy feet wide and five feet deep, to take only a moderately large shell-heap. They have run trenches in different places and in various directions; occasionally they have tried to follow the operations of workmen who were razing part of a shell-heap to make a new railway track[16] or a site for a lumber-mill; but hit or miss operations of this character can never produce the same results as systematic and complete excavations. We must remember, too, that in the moist, warm climate of the British Columbian coast everything made of wood, horn, skin or vegetable fibre, the materials most commonly used by the historic natives, decays completely within a century, that the Indians of this region were ignorant of pottery, and that the only specimens we may expect to find in the shell-heaps are stray objects of bone or antler, shell or stone. Two men may dig for a week without uncovering more than a dozen specimens that are worth carrying away.

A few words, then, will sum up all that we have learned from the prehistoric shell-heaps and from the stone cairns that seem to be more or less contemporary with them. Two types of Indians occupied the coastline in those early days, the one with very narrow faces and heads, the other with very broad. The former type has either disappeared, or else it has now so merged with the prevailing broad-headed type that it escapes detection. The builders of the shell-heaps practised trephining, a custom now unknown, but their graves, unlike those of the historic Indians, seldom contain anything except

[16]At Eburne, for example, now called Marpole, within the city limits of Vancouver.

human bones. Their rectangular houses were similar in ground plan at least to the large plank dwellings that survived until the latter half of the nineteenth century; their tools, weapons, and household equipment, so far as we have recovered them, closely parallel those in use during historic times; and their carvings in stone and bone (for all carvings in wood and horn have disappeared) seem to belong to the same general school of art as the totem-poles, masks, ladles of goat's horn and other carved objects so prominent among the present-day tribes of the Pacific coast. Altogether there appears to have been no radical change in the material culture of this region, no great disturbances of population, for many centuries.

If we examine the region a little more closely, however, we notice a few differences between the shell-heap remains in the northern portion of the province and those in the south. The heaps on the Queen Charlotte Islands contain grooved adzes and hammer heads that have not been found on southern Vancouver Island or on the mainland opposite it. Conversely, the shell-heaps around the mouth of the Fraser river yield several objects that are not known from farther north, such as tubular pipes, clubs made from the bones of whales, plain celts with the hafts in which they were mounted, and stone figures of seated human beings holding bowls in their laps. Undoubtedly these differences have a certain significance. If we correlate them with the present-day differences in language, and with the slight variations in material culture and social organization that are apparent along the shores of British Columbia, we seem to discern in the far-distant past a movement of Salishan-speaking peoples from the interior to the coast, some down the Fraser river valley to its mouth, others into the basin of the Bella Coola river and the fiord into which the river empties. It is true that

inland, in the valleys of the Fraser and Thompson rivers, the prehistoric culture revealed by ancient house-sites and graves differs markedly from any coastal culture with which we are familiar, and merges imperceptibly into the historic culture of the interior Salish tribes that still inhabit those valleys. But one can readily believe that a primitive people moving from an arid plateau of limited economic resources down to a moist littoral, heavily forested and abounding in fish, game and fruits, might abandon its earlier mode of life within a few years and take on the culture of the new tribes with which it came into contact.

The Eskimos of the Arctic coast and their kinsmen along the shores of the Labrador peninsula now claim our attention. Historically they were the first aborigines in the new world to come into contact with Europeans, for we cannot doubt that they were the Skraelings encountered about 1003 A.D. by the adventurous Norsemen who sailed across from Greenland to the coast of North America. Although practically no archaeological work was undertaken in their territory until the twentieth century, it has already yielded some rather unexpected results. The climate of the Arctic has exerted an important influence on the character, number and condition of the ancient remains, for the absence of trees made the Eskimos more dependent than Indian tribes on stone, bone, antler and ivory, which the permanently frozen soil has maintained in perfect preservation. Moreover, there was a period in Eskimo history when from Coronation Gulf to Labrador many of the natives dwelt in houses built of stones and bones of whales roofed over with turf, and the ruins of these dwellings still stand out prominently in the barren landscape. The archaeologist faces special problems in the shortness of the summer season and the

difficulty of transporting his supplies. He has trouble in excavating, too, because even in midsummer the ground is invariably frozen below the first few inches. On the other hand he has the immense advantage of finding on every side innumerable old village-sites that will undoubtedly repay investigation.

Without entering into minute details, then, we may summarize briefly the earlier history of our Canadian Eskimos in so far as we have deciphered it from their remains.[17] They seem to have been divided many centuries ago into two, possibly three distinct groups, all closely alike in some ways, in others very different. The interior region that stretches between Hudson bay and those two vast expanses of water, Great Bear and Great Slave lakes, harboured a number of tribes that seldom or never visited the sea, but subsisted entirely on fish and land animals, principally the caribou and the musk-oxen. Dependence on migratory animals caused ceaseless movements within a fixed radius, so that these Eskimos possessed no permanent habitations, but built temporary huts of snow during the winter months and moved into tents of skin at the approach of spring. Their primitive culture—for they were the most primitive of all Eskimo tribes—and their migratory life without fixed habitations did not permit the accumulation of any definite remains. We know of the existence of the group by inference only, from the handful of its descendants still occupying this region and from the tribes that, breaking away in prehistoric times, moved out to the Arctic coast and the shores of Hudson bay.

The second group of Eskimos occupied the littoral

[17]The chief authority is Mathiassen, T. "Archaeology of the Central Eskimos," "Report of the Fifth Thule expedition, 1921-24," vol. iv, Copenhagen, 1927. *Cf.* also Jenness, D. "Origin of the Copper Eskimos and their Copper Culture," Geographical Review, vol. xiii, pp. 540-55, New York, and "A New Eskimo Culture from Hudson Bay," Id., vol. xv, pp. 428-437, New York, 1925.

from the delta of the Mackenzie river to Hudson strait and probably Labrador, while offshoots even spread over the now uninhabited islands of the Arctic archipelago and entered Greenland. During the winter months they dwelt in permanent houses built of stones and turf; and, like their kindred in north Alaska down to the twentieth century they depended for their livelihood on the great sea mammals, seals and, wherever they existed, whales and walruses. Many of their tools, weapons, and household objects differed from those used in the Arctic to-day, and their stone houses are now unoccupied and falling into ruins. Yet their civilization (named Thule from the site in North Greenland where it was first discovered) must have lasted many centuries, for in Hudson bay the land has risen twelve or thirteen metres since they erected their earliest houses, and four or five metres since they built their latest a few generations before their discovery by Europeans. They were then swamped, apparently, by an invasion from the inland group of tribes, who spread over the whole coastline as far as Coronation gulf. What set the inland tribes in motion, and the date when they first pushed outward, we do not know, but it seems not improbable that these disturbances in the Hudson Bay area and in Baffin island extended as far as Greenland, and caused that southward movement of Eskimos along the west coast of the island in the fourteenth century which brought about the destruction of the more northern colonies established by the Icelanders. In the isolation of Southampton island a modified form of the old Thule culture persisted right down to 1902, when all the inhabitants except four children who had been adopted by a mainland tribe perished through an infectious disease contracted from a whaling vessel.

The third ancient division of the Canadian Eskimos

is more doubtful. Various old ruins that stretch all the way from the northwest coast of Newfoundland to Ellesmere island, but which centre apparently around Hudson strait, have disclosed harpoon heads and other objects so unlike those normally associated with Thule remains, that they surely denote either a very peculiar phase of that culture, or else a culture that is entirely distinct.[18] It resembles in a few points the culture of the extinct Beothuk Indians of Newfoundland, suggesting that the latter formerly inhabited the southern part of the Labrador peninsula in such close proximity to the Eskimos that the two peoples borrowed certain traits from each other. These, however, are hypotheses that cannot be settled without further excavations in Labrador and in the Eastern Arctic.

Although archaeological discoveries have opened up for us a vista into the history of the Eskimos during the past thousand or it may be two thousand years, they are very far from disclosing the origin of this peculiar people or deciphering the beginnings of its strange civilization. The culture revealed by the oldest remains yet examined is so well integrated, so perfectly adapted to the peculiar conditions of an Arctic coast-line, that it could hardly have evolved within a few years, but was rather the slow growth of many centuries. We have discovered no trace of such a growth within Canada itself, and several indications point to the development of a still earlier culture on both sides of Bering strait.[19] Even this earlier culture, however, is far from primitive, so that ultimately we may

[18]It is known, tentatively, as the Dorset culture, from Cape Dorset, in the south-west corner of Baffin Island where it was first discovered (Jenness, D. A New Eskimo Culture in Hudson Bay, Geographical Review, vol. xv, No. 3, July, 1925, pp. 428-437).

[19]Jenness, D. "Archaeological Investigations in Bering Strait," Bulletin 50, National Museum of Canada, pp. 77f. Ottawa, 1928; Collins, H. B. Prehistoric Art of the Alaskan Eskimo, Smithsonian Miscellaneous Collections, publication 3023, Washington, 1929.

have to seek along the Arctic shores of Siberia for the birthplace of Eskimo civilization, and for the origin of this remarkable people. Nevertheless some writers believe that the barren land west of Hudson bay, where a primitive Eskimo group still lingers, was the original home of the entire people, and that somewhere along the Arctic shores of Canada we may yet find traces of that transitional stage when it first adapted itself to life on the seacoast.[20]

[20]Steensby, H. P. "An Anthropogeographical Study of the Origin of the Eskimo Culture," Meddelelser om Grønland, Vol. 53, pp. 39-228. København, 1917.

SOUTH AMERICA AND IMPERIAL PROBLEMS

C. R. Fay

NATIONS do not stumble into empire. It only seems so, because we are ignorant of imperial history. They work for it, and when it is won they must hold it. Though every empire aims at immortality, yet all have hitherto proved mortal, was the verdict of Adam Smith in the year of England's imperial tragedy, 1776. The bounds of empire are often not seen in advance; and since empire is an overlordship, it may be lost to another imperial power or to the parts themselves, if they successfully revolt. Empire is not a disease; it is a phase of national expansion. It may be unlovely: economic progress may be unlovely. We can hardly think of a nation disappearing except by annihilation. But empires may die through political reshaping which leaves the parts in vigour. Furthermore, a mother country may have its empire at one period in one part of the world and at another period in another, as every Frenchman knows. Finally, in most empires the economic aspect is of capital importance. It is older, wider and more vital than the political. It is the seed from which the latter grows; whereas the latter is all too often an excess of centralization which culminates in disaster.

To translate these general thoughts into historical facts. Spain and Portugal, the first colonizing powers of modern Europe, established themselves in the new world at the beginning of the 16th century. Portugal, already entrenched in the Far East, secured Brazil in the west. The rest of America was claimed by Spain. The Spanish occupation was more than the settlement of a coastal fringe. For the search after precious metals took them inland.

Potosi, the El Dorado, or more strictly the "Argentine" of South America, was in the heart of old Peru; and as settlement filtered through to the south, cities were planted in what is now the Argentine republic (though no silver is mined there). Portugal, somewhat later, pushed into the plateaux of Brazil, to win gold and diamonds, as the Spaniards had won silver. But they had always to defend their empire against newcomers—interlopers, pirates, free-traders, call them what you will. Holland and England led the challenge; and so for three centuries there was a new world aspect of each great old world struggle: the normal alignment being England, Holland and other Protestant powers against Spain, France and other Catholic powers. It was a rivalry in overseas expansion, fought out largely on the seas. Without a doubt from Mexico to the River Plate this expansion brought woe to the native peoples. For Spain and Portugal came not to plant or to trade but to win treasure; and they were militant Christians. The Mexicans had the misfortune to expect a Messiah from the East; but Cortez and his soldiers, observing that they possessed gold, fell upon them, robbed, murdered and enslaved. They had no qualms of conscience about it, for their victims were but heathen savages. Nevertheless, the course of conquest was not a political disease; it was only a cruelty of growth. Disease appeared when the valour of Spain was sterilized by contact with gold and silver, so that she neglected her agriculture and commerce. And the disease was mortal in the end.

England and Holland soon came hovering around, steering as straight as the trade wind would take them to a share in El Dorado. Holland for a time had a grip on Brazil, to which came many Jews who had fled from Portuguese persecution to the low countries. England

sent out two unhappy colonies to the Spanish Main. The first was the old Providence Company, which in 1630 tried to settle the islands of Providence and Henrietta off the coast of what is Nicaragua to-day; in 1641 it was ignominously expelled by a lively don of appropriate name, Don Pimienta. The second was the Darien Company, which sent two disastrous expeditions, 1698 and 1699, to the isthmus of Darien. The company, of course, was Scottish, but to the Spaniards it was one more assault by piratical England. Thus both England and Holland failed in their immediate purpose. Spain and Portugal remained supreme on land from Mexico to Cape Horn. Three strips alone of the northern fringe of South America fell to the intruder in the Guiana land between the Orinoco and the Amazon, a strip each to England, Holland and France. And strips they have remained, without dynamic significance to the subsequent development of Central and South America.

When we say that empire came to England more by good luck than design, we mean that there was an element of the unexpected in its ultimate location. The development is less obscure, however, if we bear in mind that the British empire, like that of Holland, is primarily the result of overseas trade. These two small countries came out on the high seas in the late 16th century in search of merchant adventure. They followed Portugal to the east; and there in twenty exciting years the Dutch East India Company erected a ring around the spice-laden islands of the East Indies. The rebel or outerlanders struck back at Spain by way of the sea. For from 1580 to 1640 Portugal was united to Spain. Attack on the resources of Portugal was, therefore, attack on the resources of Spain. In 1602, the Dutch East India Company was founded. It comprised ships and capital and

men from the united provinces of Holland. Through the company Holland achieved not merely wealth but functional unity. For seven years later, 1609, the Bank of Amsterdam was founded; and Amsterdam succeeded to the financial hegemony of Antwerp. The purpose and accomplishment of the bank was not to provide banking facilities for a new nation, but to make a new nation the banker of other nations; and it could not have succeeded in this if the merchants of Holland had not fed it with the business of their own overseas trade. England did not get the Bank of England till 1694; and the interval of 85 years is the measure of her delay in converting sea power into financial dominion.

From the outset the States General were behind their company in a way that the English Government was not behind its East India Company. During twenty years, while England and Holland, being Protestant powers, were friends at home, their merchants struggled for mastery in the Indian archipelago. The Dutch won. In 1619, Jan Pieterz von Coen came out to be governor-general. He founded Batavia on the great island of Java, at the point where the straits of Sunda between Sumatra and Java admitted ships within the charmed circle of the spice island, to Borneo, the Celebes and the Bandas, rich in pepper, nutmegs, cloves and mace. They were not, however, rich in sugar. It was only at the end of the 17th century that the Dutch, to avoid an overproduction of spices, introduced sugar into Bantam, the hinterland of Batavia.

Jan Coen converted a string of trading posts into an imperial preserve. Therefore England, shut out from the islands, traded with the mainland of India as a second best. She found a foothold at Swally Hole in the gulf of Cambaya, which gave access to Surat, the court of the

Great Mogul. Portugal claimed a monopoly along this coast. She had fortresses at Diu to the west of Surat, on the peninsula of Kathiawar; at Daman to the south; and at Goa, her headquarters and the seat of the viceroy. These places she holds to-day. But the blockade which she threatened then was only a paper blockade. The Dutch and English traded with the mainland; and obtained from Cambaya on the west coast and the Coromandel coast on the east, manufactures and opium, which they carried on to the Spice Islands further east, or back to the Gulf of Persia further west. Forestalled in the east, the English traders threw their weight into the back trade with Persia; and the first stage in the winning of British India closed with the capture of the Portuguese fortress of Ormuz at the entrance of the Gulf of Persia in 1620. This marked not only the downfall of Portuguese power in the Indian ocean, but also the forging of the first link in the long chain which finally bound India with England through Aden, Suez, Cyprus, Malta, Gibraltar. In this way openings for trade brought England to the mainland of India against the original purpose of the easier, more lucrative trade with the Spice Islands. She founded an empire where she did not plan it and only after many years penetrated the continental mass. For long British India was a fringe of busy trafficking, with a retail, as well as a wholesale, side to it. The wholesale side was the ocean voyage to and from India. This the East India Company reserved strictly to its own ships; and by law these ships had to be manned by sailors who were three-quarters English. But the company allowed "free merchants" and "free mariners" to run what were called "country ships" from port to port in the East. They were commanded by Englishmen, but manned by Lascars; and English free mariners sometimes took

service with native shipowners. Lascars were largely used in the home trade also; for English sailors suffered so heavily from the ravages of disease, from scurvy on the way out and plagues when they got there, that many an East Indiaman could not have been navigated home without the aid of Lascars. Moreover, three Lascars were rated as one Englishman; and thus a crew nominally three-quarters English might be in fact one-half English and one-half Lascar. This coastal trade along and around India was the parent of that extensive trade beyond India to China and Japan, in which British shipping was so prominent throughout the 19th century under the new conditions of coal and steam.

In the new world Spain confronted England and other powers with a barrier even more rigid than that which Holland set up in the Dutch East Indies, for it rested on a continental mass. Since the Spanish Main was barred, England and other powers were edged northward; or, if they came across the north Atlantic in the first instance, were halted on their southward coasting. Established first for fishing and trade in Newfoundland and the adjoining mainland, and later in Virginia, the English made their most sensational progress in the West Indies, in what their geography called the Windward and Leeward Islands (the Lesser Antilles). The Spaniards had sailed through these to richer booty on the greater islands and the mainland. St. Christopher (St. Kitt's) was the first to be colonized, 1624; Barbadoes, 1627. Sugar, introduced from Brazil, soon became the source of their trade, displacing tobacco, which was left to Virginia to grow. Before 1640, the currency of Barbadoes was expressed in pounds of tobacco; after 1650, in pounds of sugar. The original small plantations of tobacco and cotton had been cultivated by white labour, but with the advent of sugar-

planting, financed by Dutch traders, the negro began to displace the white man; and the plantations grew in size. They yielded great fortunes—often to absentee proprietors, who became in the 18th century the great vested West India interest in London. To work them, slaves were imported from West Africa; and Barbadoes became the distributing centre of "black ivory" to the sugar plantations of the West Indies and Brazil, to the tobacco plantations of Virginia and to the Spanish Main for work in the silver mines. The movement of people which we call emigration was thus a dual flow of free or semi-free whites and enslaved blacks from regions where they were abundant or defenceless to regions where they were needed for the bulk production of staples of export. Barbadoes was well placed for this distribution. It was a compact little island, with no savage Caribs on it; and it stood well out to sea from the main chain of islands. The trade wind blows from the east and it took longer in those days to beat up to Barbadoes from Jamaica than to sail there from the English channel. It was therefore less exposed to attack from the Spanish Main. What luck had the Dutchmen in the West Indies? While England, by separate ventures was securing the bulk of the outer chain, Holland, through a single company, the Dutch West India Company, was nibbling at the mainland to the south. The Dutch West India Company received its letters patent from the States-General in 1621, that is, when the senior Dutch East Indian Company had consolidated its preserve. It made a first attempt upon the mainland of Brazil, which was so successful for a time that two Brazils were spoken of, Dutch Brazil and Portuguese Brazil. With the help of a landing force of foreign mercenaries, German, French and English, its fleet seized Bahia, the capital; and better was to come.

Its admiral, Piet Hein, in 1627 made the scoop of scoops; he took the Spanish treasure fleet off Cuba, as it was homeward bound with fourteen million florins. But the success did not endure. Though the colonists were successful with their sugar-planting, though the merchants got the dye wood that gives Brazil its name, they had to face all the time a guerilla war by the Portuguese settlers and the half-breeds and natives who were in sympathy with them against the new intruders. The Dutch, moreover, tried to force Calvinism down Brazilian throats, and it would not go. The result was that the profits of trade seeped away, and they were in a mood for quitting when a Brazil patriot, Vieira, arose, to eject them by force. Pernambuco fell in 1654; and only a ghost of the old company lingered on in Guiana and Curaçoa.

Curaçoa was the Dutchman's Barbadoes. We know it by its liqueur. It is a small volcanic island with a few goats and a superb harbour, Willemstad. It is therefore a port of call, a fueling station and a collecting point of traffic. It is finely situated for handling the great new product of the mainland, namely, oil. For Venezuela is the leading oil producer of South America, and Venezuela's chief port, Maracaibo, can only accommodate vessels with twelve feet of draught. Therefore, Willemstad, which stands out in deep water a hundred miles or so to the northeast of the gulf of Maracaibo, is a receiving port crowded with oil tankers and merchantmen. It conforms to the purpose for which Holland originally came to the West Indies. It taps a continent.

As the British colonies on the mainland of North America grew, the British West Indies lost some of their old importance. Their history in detail is complicated and obscure. Proprietor fights proprietor, the commonwealth fights the royalist party in the islands, the resident

planters fight the London merchants. None the less, the islands continued to show a balance of profit, and the fortunes they so swiftly yielded encouraged the hope that the mainland would yield the like. To us to-day the choice which England had to make between Canada and Guadaloupe in 1763 is laughably unequal. But it was a real choice at a time when island plantation was the proven road to quick wealth. The continental mass hugged its wealth. But the islands yielded their produce readily, they grew what England could not grow; and the navy could protect them. However, the selection of Canada did not deflect British traders from southern waters. Having secured in 1713 a limited entry into the South American trade, they enlarged it by illicit intercourse. It was not so much the rude populace as the seafaring merchants who forced Walpole at the last into the war of 1739 with Spain. Jenkins' ear was the excuse. The real grievance was the persistent determination of Spain to exclude them from her ponderous monopoly. All this time Spain was trying to steer the trade of La Plata through Panama and Peru—surely the most roundabout route ever attempted to be imposed. But meanwhile ships of England and others followed the coastal fringe of continental Brazil and traded heavily in hides and other products of the Pampas. Portugal, too, was unable, and did not try so stubbornly, to maintain a colonial monopoly. In the 18th century Brazil was the great source of new gold; in this century England climbed insensibly from a silver to a gold standard. She did this nominally on the gold dust of the Guinea coast, but really on the gold coin of the mints of Brazil. Portugal, since the Methuen Treaty of 1703, was our intimate ally. We drank her port and pouched her gold. If we think of political dominion, we shall turn with the Earl of Chatham

from Guadaloupe to Canada and the mainland. If we think of economic power, verging on empire, we shall follow the slavers and freebooters to the South Seas. Some notion of the glamour which they exercised is afforded by the South Sea Bubble of 1720. It was a canny scheme of debt conversion made alluring by the glow of precious metals and diamonds which poured from the landsman of Peru and Brazil. Nor did the lure of the South Seas die then. There was not only the challenge of Cape Horn, with its illimitable beyond; there were solid continental trading values in obviously weakening hands. Castlereagh and Canning did little to advance political empire, but by their quickness to recognize the new states of Central and South America they did everything to advance economic empire in the new milieu of distant lands not belonging definitely to any old power. The Monroe doctrine of 1822 was a unilateral pronouncement by the young United States warning Europe off the American continent. Canning, in his brilliance, converted it into a charter of free trade with South America; and in the name of this Huskisson completed his revision of the old navigation laws. Who, among the roving spirits of England, was not to be found in a Mexican mining venture in the booming 1820's. And the contacts thus established have grown in extent and depth. In no invidious sense, the Argentine is an outpost of England's economic empire, moving gradually into economic autonomy, just as is India in the east. It is abundantly clear to the Argentini that the old danger that economic empire may end in political subjection comes not at all from England. England is an old friend, and an honest trader from overseas. The big brother is the United States, which now in the name of Monroe sends finance commissions and marines to the smaller republics,

to keep them solvent and free, as freedom is understood by American capitalists. Were I asked to name the greatest empire maker of that somewhat empire-tired generation of 1815 to 1837, I should say Thomas Cochrane, 10th Earl of Dundonald. By his preposterous and well-nigh incredible victories over the navies of old Portugal and old Spain, he made the seas of South America almost as English as the coast of Cornwall. Yet withal he was and is honoured by South America, as well as by Greece, as one of their liberators. Cochrane was the seaman of empire, an Elizabethan seadog winning spoil for others: as Rhodes later was a landsman of empire, and as Henry Morton Stanley would have been if we had not in our supercilious ignorance driven him into the arms of King Leopold the Second of Belgium.

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What, then, is the moral? Canadians themselves realize fully the limitations of a West-East contact, even when it is projected to Great Britain. They are now rolling back their own north; and in recent years they have valorized their wealth of wood by sending it as pulp and paper to their neighbours to the south. This trend is not a novelty of the 20th century. It has its historical basis in the old triangle of trade, Europe, the West Indies, the Maritimes. Canada is not an intruder in the West Indies. Her post-war arrangements for reciprocal trade there continue the old contacts of the days of wind and sails. Following the sailing ships, the Canadian banks penetrated the Caribbean and the coast of Latin America; and they are there to this day. So, too, in the Pacific, lumber moves through the Panama from west to east via the south: repeating in the reverse direction the earliest inflow of settlers and goods. The Bank of British Columbia, now a part of the Canadian Bank of Com-

merce, was established in 1862 at the time of the gold rushes, but before long it found it wise to work south to San Francisco and Portland, Oregon, in search of more enduring business. This won, it came back, as it were, to Vancouver to meet the C.P.R. from Montreal. Thus Canada's financial note has not been mainly internal. At a time when the National banks of the United States cared mainly for domestic trade within their great new interior, the Canadian banks, profiting by their high standing in London, helped to finance the foreign trade of 19th century United States. Canada thus made herself complementary to the senior industrialism to the south. But when the time comes that the relationship is one of rivalry, accommodation is less easy. Witness, for example, Canada and New Zealand. The Canadian people believed in 1930 that the furtherance of internal trade between Canada and New Zealand was at the expense of their agricultural stability in the dairying field. Therefore the arrangement was terminated in an atmosphere not conducive to a renewal of the experiment.

And if advantages and difficulties of this sort present themselves to Canada, how much more to Great Britain! There are three bonds of empire, other than the impossible bond of political centralization. One is the bond of people, kept alive by emigration in one direction and by visits of pleasure and study in both directions. Imperial economy is at its highest, not when the flow is from the mother country only, but when the flow from the mother country is the model of all. No one can be very proud of the deportees, whom Canada returns, when depression descends upon her. Here is a call for greater moderation in boom time and greater generosity in depression.

Similarly in the tariff field. By a policy which since 1929 can only be termed aggressive, the natural exchange

of Canadian wheat for British manufactures has been obstructed, to the grave hurt both of agricultural Canada and industrial Britain. Any British statesman who should propose now to erect a new tariff wall, simply to give preference within the empire, would but aggravate the domestic difficulties of Great Britain. There is much talk nowadays of "Buy British", but it should carry with it "Pay with British"; and it *must* carry this with it, if it is to succeed.

I do not suggest, by implication, that South America in all regards is a more natural market for Great Britain than is Canada. In regard to trade it is an easier market, because the manufacturing interest is not yet strongly entrenched there. But in regard to finance it is a more difficult market. Canada has not followed the path of the paper peso or milreis. The fidelity of the Dominion to the obligations of itself and the provinces has saved British investors time and again from the losses which have fallen upon them in Latin countries; and this fidelity has extended to the preservation of the standard of values. Great Britain herself is now strained hard to maintain sterling. The measure of her departure from the old basis will be the measure of the loss which falls upon the financial institutions of the empire which have kept their balances in London. Some of this strain, however, is caused by the impossible purpose of the new world to trade only in one direction. Thus finance and commerce are intertwined.

It is suggested, in conclusion, that the success of future economic conferences will depend largely on two things:—first, regard for the historical role of each part of the empire in the field of international trade; secondly, a readiness to see the interactions between commerce and finance, between export of people and export of things,

between national, imperial and international stability. With Huskisson liberalism and imperialism went hand in hand; so, too, with Adam Smith. But an imperialism which is grounded on greater obstruction to trade outside the empire will fail, because it will end in a policy which hurts internal trade only less than it hurts foreign trade.

THE INDIANS OF THE PRAIRIES AND THE ROCKIES

A THEME FOR MODERN PAINTERS

MARIUS BARBEAU

WHEN Langdon Kihn ten years ago sought pictorial themes among the Indian fisherfolk of the Northwest Coast and the prairie hunters of Western Alberta, it was his good fortune to invade a colourful field.

That country holds a strong appeal, with its grandiose strangeness. It harbours beauty and never surrenders the last word of its mystery. The Coast, particularly on the Alaskan border, is Asiatic-like; it is on the frontiers of Japan. Its warm moisture breeds an extravagant vegetation, carpets the ground with flowers and covers the bush with wild fruit—the salmon-berries and the salal of the tide-waters, the juicy saskatoons and the bitter soapberries of the plateaux, and the exquisite huckleberries of the mountain slopes. The diversity of tribes and scenery did not fail to stimulate Kihn's imagination—particularly during the eight months we camped together among the Gitksan of the Skeena—, for the semi-tropical seacoast is as different from the rolling foothills of Alberta as are the red men from both areas who used to claim their undivided possession.

The Indian portraits and totem pole landscapes of Kihn attracted much attention, when they were exhibited in Ottawa, Toronto and Montreal, after his return. Their clear colour note and decorative quality made a brilliant show of a large collection of his paintings. The exhibition aroused interest both in the artist—a young New Yorker—and the country which he seemed to be the

first to interpret. Not only was his work attractive and original, but it formed a record of Indian life at a moment when it was passing out of existence. Our collaboration indeed—I was studying native art and customs for the National Museum of Canada—made it possible to resurrect many things now out of sight that otherwise would have gone down to oblivion.

A number of his Stony and Kootenay portraits were secured by the Canadian Pacific Railway for the Thompson Memorial at Lake Windermere. And an effort was made to preserve another part of the collection in public museums. The Southam brothers, newspaper publishers, purchased more than thirty of the best canvases and donated representative groups to Canadian art galleries from Montreal to Victoria.

The success of the artist helped in spreading definite impressions of the picturesque Rockies, of the fine wood carvings of the Northwest Coast tribes and their totem poles which constitute a striking feature on this continent. Though an outsider himself, he has contributed to open up a new field, so far neglected, and thus to enrich national consciousness.

Canadian painting for some years has broken new ground, under the leadership of the Group of Seven. Its advance has been rapid, if not spectacular. It has conferred upon the country a distinction and a character all its own, yet till then unexpressed. But its domain at first was restricted mostly to the Georgian Bay and central Ontario. Kihn's success made it easy for me later to induce eastern Canadian painters, including some of the Group, to extend their activities to the Northwest. Alex. Jackson, of Toronto, and Edwin Holgate, of Montreal, were the first—after Kihn—to initiate the movement. Their reactions to the Skeena river scenery were different

from Kihn's, and also among themselves. Jackson is one of our leading landscape painters among the seniors, whose gifts find expression in composition no less than a subtle colour scheme. The well-balanced solidity of his masses goes hand in hand with a great sensitiveness for significant details. Holgate, by many years his junior, at the time was interested mostly in Indian portraits, like Kihn. Yet his treatment was different. He sought character in a rather austere way, whereas Kihn looked for it in relation with decorative associations. It was interesting to compare the results thus achieved by independent personalities. But all were agreed that inspiration soon is quickened in a country so rich in wild life, aboriginal themes, and rugged scenery.

The Northwest Coast and Skeena people are village dwellers. Their rectangular plank houses used to stand —some of them are still left—at the water's edge in the fiords or close to fishing stations on the rivers. Their small modern settlements now are scattered on modern reserves. Kihn and Holgate were the first to characterize their Mongolian-like features in forceful portraits. Their landscapes, with those of Jackson, provided a background that was as decorative as it was exotic.

Far away to the east, across the mountains, lived the hunters of the prairies—the Stonies, the Cree and the Blackfeet, whose existence was nomadic and whose skin *tipis* shifted from place to place for the needs of peace and war. Even now, after they have been barb-wired on reserves, their Indian agencies and missions stand in isolation, like symbols of the restrictions which have not won full recognition in the land.

Whereas the Coast tribes depended on the sea for subsistence—their food was salmon, whale, seal blubber and candle-fish oil—the rovers of the plains wanted

nothing but buffalo meat, which, once their appetites were satisfied, they dried in the sun or prepared into pemmican. If the Coast people cared nothing for the flesh of land animals, the others—the Blackfeet in particular—loathed fish-eaters, for fish to them was "unclean", as snakes are to most people. The Gitksan of the upper Skeena were of a transitional type, both fisherfolk and hunters.

Their respective modes of travelling and hunting were as far apart as the nature of their foods. The Coast fisherfolk could not betake themselves to any distance without their one-piece canoes hollowed out of the trunks of giant cedars; they fished with nets of wild hemp and hooks of bone or hardwood. The Plains tribes, on the other hand, could only travel on foot, in pre-Columbian days. Women and dogs were the beasts of burden, while the lords of the land led the caravan forth, their hands free for action in encounters with hostile bands. When the Spanish settled in Mexico, wild horses or "cayuses" spread over the prairies to the north, even before the white man was first seen. The buffalo hunters then changed their ways. They captured the "cayuses" or stole them from their neighbours, and became expert riders. Instead of crawling near the buffalo herd or waiting for it in ambush, they pursued it in the open, surrounding it on their swift broncos.

The sharp contrast between these two stocks of Indians becomes more intelligible in the presence of characteristic portraits from both areas, those by Holgate, Kihn or Winold Reiss. Reiss is the painter with whom Kihn first visited the Indians of the Southwest, over ten years ago. The face of the Nootkas of Vancouver Island and of the Gitksan of the Skeena, is broad and square; the jaw is massive and the nose often flat. Their physiognomy is

Mongolian. The aristocratic features and expression of the prairie hunters belong altogether to a different lineage. The face is long, narrow and oval; the nose is markedly aquiline and the arch is high. The contours are not unlike those of a Polynesian of the South Seas.

The assumption has long been current that our natives form a racial unit apart from the rest of mankind. The very name "Redskins" and "American Indians" crystallize that popular notion. But a few ethnologists now are busy disproving the theory of American insularity. They are tracing up native migrations through Alaska to Siberia and are finding out how races still represented in other parts of the world have expanded into the "new world" at various times in the past.

The Northwest Coast people belong to a Siberian migratory wave that has rolled over the edge into America long after other races had preceded them; for instance, the plains and woodland Indians, the Eskimos, and the other central and southern tribes, which are more typically American.

The advent of Europeans on this continent proved a turning point in the history of native tribes. Greeted as sky-beings and benefactors, the newcomers turned out to be meddlesome. They had brought with them more evils than blessings. Their transgressions were to spell ruin.

In the great crisis of their lives, the Indians lacked foresight. The wisdom of their forefathers was of no avail. Disasters came upon them in quick succession. Yet, they never thought of living in peace together and offering a solid front to the conquerors of their land. Instead, they engaged in feuds that were made more destructive through the introduction of firearms. They used the advantages derived from their white allies against their kindred, without considering that a few

years later the balance might turn against them. Frontiers were violated, hunting grounds invaded, ancient rights trampled upon, and enmities engendered that could only cause the pendulum of blood revenge to swing both ways and lead to extermination.

The present-day Indians are no longer as their ancestors used to be; their surroundings have also undergone radical changes. Yet, artists gifted with insight and imagination, like Kihn and Holgate, can penetrate under the surface. They have given a clear, individual reading of human souls at a time when they are fading away in our materialistic world.

After Jackson and Holgate had come back from the west with sketches and canvases that challenged interest no less than those of Kihn, it was decided to organize a Northwest Coast exhibition. Native wood-carvings and ancient costumes would be shown beside modern portraits and paintings illustrating their backgrounds. The National Gallery of Canada for this joined hands with several museums, and the exhibition was to take place in Ottawa, Toronto and Montreal.

A survey of museum resources and of the work of painters at large then took place. Other artists had continued the "invasion" of the Northwest, among them J. E. H. MacDonald and Lawren Harris, of the Group of Seven; W. J. Phillips, of Winnipeg; also Florence Wyle and Annie Savage, of Toronto and Montreal.

The most interesting find then made was of a western Canadian painter so far unknown, and who had failed to win recognition even in her own town—Emily Carr, of Victoria. Yet she was an art pioneer and endowed with vigorous talent. Unaided, in a country where modern art was misunderstood, she set her heart upon expressing her surroundings in paint, after she had come back from

the art schools abroad. While the spell was on her, from 1910 to 1912, she filled her studio with hundreds of sketches and canvases illustrative of Indian life and art and wild landscape. But these had since gathered the dust. Her work had been rejected by her fellow artists. She had lost confidence in herself too soon and devoted her time to the manufacture of pottery on which she had painted Indian designs. Her pottery alone was known from coast to coast in the tourist shops.

Her paintings proved one of the important features of the Northwest Coast Exhibition. She has since figured in the front rank among her peers, not so much on the strength of her early efforts as of her renewed development, which is remarkable. Of all the painters, she is the one whose readings of the Coast are, in a way, the most authentic and novel. Born there, of a father who had tried his luck in the California gold fields, she found him "too English", for she loved the country of her birth first of all. She travelled alone with her easel and brush among the Vancouver Island tribes, on the Queen Charlotte Islands, and along the Skeena before the railroad was built. Fond of the natives, she made friends with them. Her work is of things that without her would have been lost, for they have since disappeared.

The exhibition of Northwest Coast Art proved a unique event. It brought out personalities and art features till then unknown. Indian carvings and totem poles hung or stood beside modern paintings. Each borrowed its inspiration from the same backgrounds. One enhanced the beauty of the other and made it more significant. Indian craftsmen had been great artists in their way and the most original. The moderns had responded to the same exotic themes, but in terms consonant with their own traditions.

The Canadian Rockies and the Northwest Coast are now part of our art panorama. The "summer exodus" to the West Coast, as it has been termed, still continues, and pictorial contributions become yearly more varied and satisfying. Arthur Lismer, of the Group of Seven, went to the neighbourhood of Banff, where Rungius and Brown have spent their summers for many years. Phillips, of Winnipeg, explored the Alert Bay district for pictorial themes and has since published an interesting album of wood-cuts from the homeland of the Thunder-bird. George Pepper and Pegi Nichol, of Ottawa; John Byers and Lowrie Warrener, of Toronto; Paul Coze, of Paris (France), have recently sojourned on the Skeena. Scenery, totem poles, native graveyards and Indian physiognomies have tumbled upon canvas or into plastic clay at a terrific pace. Gitksan chiefs once more have donned their regalia, perhaps for the last time; they are dying out. When the moment came for visitors to depart, they buckled up their fat portfolios with a light heart. Their search for truth and beauty has not been idle.

Big business also has awakened to the advantages of vitality and live art. When the plans were submitted for the new wing of Chateau Laurier, the magnificent hotel of the Canadian National Railways in Ottawa, space was provided for a tea garden. This hall might lend itself to the spirit of the times. Someone suggested a Canadian background, in preference to Renaissance florals and scrolls from the hand of commercial decorators. Sir Henry Thornton, the president, gave his approval, and a painter was chosen, who would measure up his skill and inspiration to an exacting task—the embellishment in the Indian style of an inner room, a hundred feet long and wide in proportion, with eighteen large pillars and a vaulted ceiling. Edwin Holgate was elected for the

enterprise. Since he knew the Skeena River scenery and totem pole carvings at first hand, from them he would draw authentic designs and local colour such as can be adapted to architectural functions and requirements.

The Skeena Room of Chateau Laurier came into existence as a result. It is far and away the most striking feature of this fine hostelry and the only original one. Even before its completion, it was insistently sought for by visitors and all who are interested in Canadian art. It constitutes a striking departure from the beaten path, and a step forward in Canadian art and culture.

If eastern artists first became aware of the potentialities of the Rockies and the West Coast, it seems that the westerners themselves are awakening from their torpor. Vancouver is now coming into its own as a creative centre. Under the direction of Charles H. Scott, its municipal school of arts is now bringing out youthful talent to fruition; and a new art gallery is being founded and endowed. The winter exhibitions of the National Gallery now yearly receive from the far west pictures that are redolent of coast scenery. F. H. Varley, of the Group of Seven and formerly of Toronto, now delves in sea-shore values—white mists, semi-tropical moisture and dark green forests—, then in the luminous peaks of Mount Garibaldi with flowers in bloom at the edge of glaciers. W. G. MacDonald and W. P. Weston, like Varley of the staff of the school, also keenly respond to novel themes, whereas Grace Melvin teaches design and fundamentals. What characterizes the work of two young artists produced by the school, Irene Hoffar and Vera Weatherbie, is the way in which they merge into their exotic environment, painting by preference as they do Indian physiognomies in shadowy greenery or totemic symbols that tantalize the eye and intrigue imagination.

The east and the west have joined hands in a common appreciation of one of America's most inspiring backgrounds for pictorial art—the Rockies and the Northwest Coast.

THE CITY OF THE UMBRIAN GRIFFIN

WILLIAM HARDY ALEXANDER

THE prophet of Israel learned to his great surprise that there were seven thousand in the kingdom who had not bowed the knee to Baal; it is a humour of statistics that there are about the same number of English and Americans permanently resident in and about Florence. It is also illuminating as to the vagaries of the human mind that when some one casually mentioned the latter fact to me, the other promptly popped into the forefront of consciousness.

For the selection of Florence by these seven thousand of our kin there are many excellent reasons. The Lung' Arno from the Ponte Vecchio to the Pescara, with its Dantes or even persons less spiritually minded still encountering lovely Beatrices, is a perpetual delight at sundown, and Santa Croce grips the heart with a hundred bands of compelling love. Fiesole in one direction and the Certosa in another give prospects that are among life's richest and most permanent satisfactions. Yet Florence, for all its adorableness, is situated in a pot-hole, and those of the seven thousand who lack the means to flit when they will, are forced to realize it in the late spring and summer when the city stifles in muggy heat.

But there is another Italian town, just a hundred miles away, the city set on a hill that cannot be hid. Fifteen hundred feet or so above sea-level, a good six hundred above the environing plain, it is an eagle's nest perched among the Umbrian hills, where every summer evening cool breezes from the friendly Apennines temper what heat the day has shown. I have been suffocatingly sleepless in Florence even though my window gave gener-

ously on the Arno; Perugia grants peace and repose at eventide. It is curious that on such grounds alone it has not attracted and retained more permanent English-speaking residents, and that the weary and battered summer tourist does not tarry there longer, if indeed he finds it at all.

To be sure it is perhaps, artistically speaking, insignificant beside Florence; yet to those who seek to enjoy a little well rather than to live for ever hungry in the midst of great provision, *magnas inter opes inops*, Perugia affords an attractive field. There is, for example, the Pinacoteca Vanucci, absolutely priceless for the study of the dreaming tranquillity which marks Umbrian art; it is filled with the handiwork of the great Perugino himself, Pietro Vanucci, and of such other luminaries in the Umbrian firmament as Gentile da Fabriano, Benedetto Bonfigli, and the prolific Pinturicchio. It is a feast of which you cannot long support the richness, and fortunately the lighting compels you to come at different hours for different rooms. And not everybody knows that Raphael's first public fresco is to be found at Perugia in the chapel of the former convent of San Severo, in curious and informative juxtaposition with the last work of Perugino. The Cappella di San Giovanni in the Collegio di Cambio, covered with the paintings of Giannicola Manni, after he had returned from three years of inspiring contact with Andrea del Sarto in Florence, is a tiny jewel of great price, needing to be well examined in all its facets.

No doubt, too, the connoisseur of architecture has a wider range in Florence for his studies and his enthusiasms but the Palazzo del Municipio in Perugia is in itself worth a long trip and an extended stay. The northern façade with its magnificent *scalone* leading up to the door of the Sala dei Notarii, under the bronze lion and the griffin cast

by Ugolino in the late thirteenth century, ranks very high among the public monuments of the Italian *medio evo*; the lively animals mark a new epoch in the renaissance of bronze casting. The little Byzantine church of Sant' Angelo almost forces from your British phlegm a cry of delight, followed by fervent thanksgivings that parish poverty has compelled it to remain primitive as it should be, while San Pietro de' Cassinensi, at just the opposite extreme of the city, a true Roman basilica with sixteen classic columns, is sheer beauty such as is not easily matched even in Italy. If you have ever seen the San Pietro of Perugia illuminated, surely there has risen to your lips the cry of Jacob at Bethel: "This is none other than the house of God, and this is the gate of heaven." And what of the façade of the oratory of San Bernardino of Siena? There is craftsmanship in the panels forming the sides of its doorway that is a powerful reminder of the delicate tracery of the north porch of the Erechtheum.

I have not set in this list the cathedral church of San Lorenzo; I observe that Baedeker's painstaking editor for Central Italy cannot become enthusiastic about it either, even to the point of awarding it a single star. It is a notable experience to come from Siena, crowned with its churchly diadem wrought in that bold black and white striping which alarms first but convinces later, to Perugia, there to find only the harsh gauntness of San Lorenzo. And the gauntness, the positive emaciation, is rather forced upon you by the finished glory of an adjacent secular monument, the great town-hall just on the other side of the Piazza del Municipio, now called by one of those desolating date-names that seem to give peculiar delight to the Italian street-namers of to-day. Were the Perugines of the middle age not sufficiently Christian to

be solicitous about such a contrast? Or shall we say they were too pagan to worry?

Perugia is, after all, hauntingly pagan. The Umbrian griffin, a well-nigh universal decoration in the city, is, of course, a fabulous beast deriving from Etruscan folk-lore of the after-life. You will find it figuring on the Etruscan funerary urns in the modest collection in the museum of the local university, urns gathered from the nearby tombs of that strange race which once ruled in pride from Perugia's hill-peak, and the city has never, no matter under what preaching, been faithless to her tutelary beast. Best preserved of all Etruscan tombs is the hypogeum of the Volumnian family; you can reach it by a short two miles walk from the heart of the city out through the Porta San Costanzo, best made in the early morning before the madmen who drive automobiles in Italy have taken to the road. Only pagan spirits could dwell in a grave like that. And the older city is still almost surrounded with a wall which in its lower courses is certainly Etruscan, and the massive gate through which one passes from the earlier city to the little Piazza Braccio Fortebraccio, is in large part the work of Etruscan designers and masons. For while Perugia is queen of Umbria to-day, she was reckoned of old to belong with Etruria; Livy mentions her along with Arezzo and Bolsena as one of the most powerful states of the Etruscan confederacy of the twelve cities.

It is curious that we know so little of pagan Perugia in Roman times, but what we do know is like so much of later Perugine history, tragic and blood-stained. It was to the refuge of Perugia's wall that the remains of the ill-fated army of Gaius Flaminius fled from the slaughter-house beside Lake Trasimene, after that disaster so grandly announced by the senate to the Roman people in

a model communiqué: "We have been defeated in a great battle." It was at Perugia, in 40 B.C., that Lucius Antonius, brother to Mark Antony, to save his own life arranged a surrender which abandoned his Perugine allies to the murderous rage of the flinty-souled Octavian. But the young triumvir was cheated by Gaius Cestius Macedonicus, *quem honoris causa nomino*, who found doom in the smoking ruins of his own house; it was the example for a general conflagration that left little for the conqueror's triumph. So a proud people disdains to live on when life has lost its reasons for being lived, and the Perugini remain a proud folk, as befits such ancestry.

But if we let history, first cousin to common gossip, run away with us, we shall presently find ourselves lingering over the medieval paganism of those implacable enemies, the Baglioni and the Oddi, Perugia's Montagus and Capulets, with its dagger, poison, and proscription. Yet one cannot easily forget it as he makes his tortuous way through the maze of narrow streets that lie between the Palazzo dei Priori and the oratory of San Bernardino. They are so narrow that one pace forward and a half-lunge would account for an enemy on the other side; they offer a hundred lurking places for the assassin's stiletto. No one of the Baglioni or Oddi ever strolled unaccompanied through that labyrinth where death had set up his ensign at every corner and beneath every arch.

Incidentally, these tempestuous nobles seem to have been good Latinists, or to have commanded the services of competent classical scholars. Latin mottoes abound on the lintels of the doors in the older parts of the town, and there is one princely mansion in the Piazza Porta Sole which has used all its window-sills for the enunciation of a fine bit of Horatian philosophy:

Nil admirari prope res est una, Numici,
solaque quae possit facere et servare beatum.

But there must have been times when the dwellers in even so charming a spot as Piazza Porta Sole were hard put to it amid riot and faction to practise such admirable quietism.

What is the loveliest place in Perugia? It is a question that the mention of Piazza Porta Sole suggests. Most votes would likely be cast for the Giardino Carducci on the brow of the hill where the ambitious Prefettura has replaced the old papal fortress so long and cordially detested by the Perugini as the seat of arch-tyranny. Certainly it affords an imposing prospect. To your left is Monte Subasio and, usually standing out clear as crystal, there perches on its shoulder Assisi, rich in associations with the life of the most unpretentious Christian of the centuries. That way, too, lies the upper course of the Tiber, and it is a pleasant walk out past the cemetery along a real country road to Ponte San Giovanni to gaze more closely on the storied stream. Straight ahead is the east horn of the Umbrian vale, that great horseshoe which begins at Spoleto, sweeps around below Assisi and Perugia, and follows the Tiber down to Todi. It is as rich in kine to-day as when the ancients admired the white oxen on the banks of the Clitumnus; vineyard and olive orchard fill it far as eye can reach. In the distance the single trees look like little tufts of green-gray wool pulled through a gigantic embroidery frame. To your right are roads leading off to Chiusi, where Prince Porsenna swore that princely oath by the nine gods of Etruria, and to the Lago di Trasimeno of sinister fame in the annals of Rome. "Earth hath not anything to show more fair."

Yet there will be some like myself who feel that

Piazza Porta Sole may lay claim at least to divide the honours with the Giardino Carducci. From it on the left your eye follows one finger of the town (hills and ravines make Perugia's map a spread hand) curving up the Corso Garibaldi through the Porta San Angelo to the Franciscan monastery of Monte Ripido, venerable in the tradition of the order. Right before you, as you lean on the heavily-buttressed parapet of the piazza, is a precipitous drop to the Via Pinturicchio with its memories of Bernardino Betti, but perhaps your mind will traitorously find itself more absorbed in the dangerous progress of some emaciated Italian cat over the red roof-tiles far below than in recollections of the career and achievement of the artist. On your right, over the top of Santa Maria Nuova and Santa Maria di Monte Luce, conspicuous with its red marble checker-board front, Assisi once again and Monte Subasio

Onde Perugia sente freddo e caldo
da Porta Sole.

Of course the prospects from the Carducci and Porta Sole vary greatly with the time of day; my own preference is for Porta Sole in the early morning and the Carducci in the hour just before sunset. But the two points are barely ten minutes' easy walk apart, and anyone may pass from one to the other repeatedly without undue effort if anxious to be a just judge. And it will not be mere walking; his way will lie either by the Via Baglioni past the ancient building of the university and the former Palazzo del Capitano del Popolo, or by the city's principal throughfare, the Corso Vanucci. And at the north end of the Corso stands the Fontana Maggiore for your marvel even if at the south end you must face the inevitable horror of an equestrian statue in the Piazza Vittorio Emanuele. Here the Fascisti began the famous march

on Rome on October 28th, 1922; Perugia is a great name in their annals.

The Corso is a scene of wonderful activity from about half-past six on a summer's evening till nearly nine; that is the appointed season of the daily constitutional or fashion parade, carried out with quite solemn punctilio. The charming *signorine*, attended always by a watchful mother (*O matre pulchra filia pulchrior!*), stroll slowly back and forward an unreckoned number of times, and the lads, carrying light canes which are presumably the badges of manhood, do the same, arm and arm in their little bands, apparently indifferent to the charm of beauty, but perhaps there are subtle glances from those soft, dark eyes which the stranger fails to catch. The occasional air-officer from the hydravion school at the Lago di Trasimeno lends a smart touch to the promenade. One is struck, too, by the very distinguished figures of civilians in middle life who talk politics as they go, and, after the Italian manner, suddenly come to a complete stop to register some particularly important point in the discussion. Probably Cicero did just that very thing as he made his way down with a group of political associates from the Esquiline to the Forum.

Perugia possesses one great advantage not always adequately recognized, though the ever-vigilant Baedeker has not missed it; it is a capital centre for brief excursions to a number of most interesting points in all directions. North-east lies Gubbio, the Iguvium of the ancients, with a mural Madonna by Ottaviano Nelli that alone would justify a long pilgrimage, and the famous bronze Eugubine tablets for the delectation of classical scholars. Chiusi is due west only a couple of hours by express motor service. Orvieto, with its *stupor mundi* cathedral front and the Cappella Nuova where Luca Signorelli has made the

world his everlasting debtor, can be reached in five hours through Marsciano, and this includes a drive along the "top of the world." Assisi is but an hour and a quarter east. Even Siena is only four hours distant by motor de luxe. Cortona and Arezzo are an easy rail journey. And of course for anyone who has brought his own car, his life can be as that of the gods.

But the true lover of Perugia, aware of these external fascinations, really loves her for her own sake; I have tried to suggest by hints why, but after all love is not easily explained, be it of man, woman, or place. For Perugia has all the fascination of a woman with a past that is full of mystery through which are shot scarlet threads of tragedy as well; it breathes from the walls of her palazzi that bulge in and out to adapt themselves to the sinuosities of her tangled streets, bearing names that are romances in themselves. And when the woman with the intriguing past remains supremely charming and even beautiful, perhaps even more charming and beautiful than in her more impetuous and passion-scarred youth, why seek further explanation? Life is just like that.

But the love of us Perugia lovers is not one of those jealous and exclusive loves which torture as much as they bless; far from being concerned to reserve her for ourselves alone, we even seek to recommend her acquaintance to others. Only we hope that she will not become as popular as Florence; Perugia would not then be Perugia. We should have to transfer our effects and our affections, well, perhaps to Gubbio!

WORDSWORTH'S VISION OF IMMORTALITY

G. Wilson Knight

I

WORDSWORTH succeeds more often as a teacher than as a poet. His nature mysticism has, indeed, exercised a wide and profoundly beneficent influence. But we too often mistake his personal and discursive expressions for the concrete solidities of great literature. In *The Prelude* and *Tintern Abbey* we have what is usually considered the Wordsworthian essence. Yet those poems are but intermittently grand, and in places sink below the level of moderately good verse. With a few possible exceptions, their best is only a second best. In a famous passage the poet describes a typical experience, and then:

> . . . . but after I had seen
> That spectacle, for many days, my brain
> Worked with a dim and undetermined sense
> Of unknown modes of being; o'er my thoughts
> There hung a darkness, call it solitude
> Or blank desertion. No familiar shapes
> Remained, no pleasant images of trees,
> Of sea or sky, no colours of green fields;
> But huge and mighty forms, that do not live
> Like living men, moved slowly through the mind
> By day, and were a trouble to my dreams.
>
> (*The Prelude*, I, 390).

That is fine poetry; perhaps great poetry. Yet it contains certain characteristics of bad writing—here, however, not necessarily "bad"—which indirectly point us to the fundamental weakness of *The Prelude* as a whole and

other poems in this kind. Observe the abstract nouns: spectacle, brain, sense, modes of being, thoughts, darkness, solitude, desertion. It is all vague, "undetermined". What are these "huge and mighty forms"? But, indeed, the poet is definitely describing an ineffable experience, and can we blame his failure in speech? Notice how "no familiar shapes" remained, nor any "images" of trees, sea, or sky, nor "colours of green fields". Yet these are the very stuff of poetry. What is the poet to do with a vision essentially unpoetical? Wordsworth tries to convey vague "forms" to us, renouncing the "shapes" of the senses. But consider:

> And as imagination bodies forth
> The forms of things unknown, the poet's pen
> Turns them to shapes . . . .

Again "forms" and "shapes". If Theseus be right—he usually is—Wordsworth is by so much the lesser poet in that he appears to be content to leave his "forms" untranslated into "shapes". Thus, in trying to be true to a personal experience, he fails to create a selfless and universal art.

Wordsworth continually describes when he should transmit, explains rather than presents. His very limitations, indeed, increase his popularity, for he comes down to our level, shows himself painfully struggling with his own vision, as all men ungifted with poetic utterance are pained at times by their enforced silences. Here he is in his difficulties:

> I cannot paint
> What then I was . . . .

So he writes in *Tintern Abbey*. But this is nothing for a poet to be proud of: it is here his business to paint what then he was. Nor should a poet deal for long in any "undetermined sense of unknown modes of being", since

he exists, as poet, to determine and shape this vague "sense" and render those "modes" known to us. Thus Shakespeare has his concrete figures Oberon and Puck, his ghosts, his Weird Sisters, Ariel and Caliban. And Keats can be as personal as Wordsworth without the limitations of personality which we feel when a poet too frequently describes his own inability to express his vision. Keats's *Ode to the Nightingale* exists serene, unbending to our approach, giving no hint as to the mysterious process of its own creation; almost remote, with the cold disregard that carves the aloofness of highest poetry. Personal, it is yet impersonal, purified of egocentricity. Yet, strangely, the popularity of Wordsworth as a "mystic poet" rests exactly on this failure in expression. We can all read ourselves into his clouded personal statements. Thus he is continually, because so easily, being pressed into service to revitalise our vague religious sense with an additional vagueness. *The Prelude* gives us the experience which lies at the back of religion and poetry: but it gives us no religion, nor any consistent poetry. Leaving the final act of creation to us, it makes poets of us all. And in return for the compliment we honour it unduly.

But the sonnets are couched in a different style. There we find the ring and clarion voice of a more tangible, metallic verse:

All bright and glittering in the smokeless air.

The line goes off like a pistol shot, its reverberations lingering on, out-rippling over the mind's infinities. Again,

Never did sun more beautifully steep
In his first splendour, valley, rock, or hill . . . .

Notice the upward lift of the word "splendour", the word-rhythm mated to the uprising sun it describes. These imaginations are not vague. But, since they are more

purely descriptive, it is perhaps unfair to contrast their objectivity with the tremendous personal experiences vaguely shadowed forth in *The Prelude* and *Tintern Abbey*. No. For once Wordsworth fused the two—profound vision and concrete expression—in a great poem; and the difference is immediately apparent. The deep mysticism of *The Prelude* is there: but "shapes" have succeeded "forms". There is the finely turned phrase and verbal glitter of the sonnets: but, instead of "description", a moving content to which "shapes" are only the expression vitalised by the "forms" beneath; or, as the limbs of transfigured Asia, "child of Life", in Shelley's *Prometheus* burn through the vest which hides them, so the covering symbol is electrified by the fiery delight it overdrapes. Here the poet's vision is enmeshed with a true symbolism to create a short poem, by whose gold the whole *Prelude* is as dust.

Throughout our literature, in poetry, the novel, the drama, our greater works are so created, by a fusing of personal passion and experience with objective fact. Thus they are at the same time emotional and intellectual, mysterious and yet at every point defined. There is always a metaphysic implicit in their symbolisms. Usually such greater works are sombre, black, minatory; and we have the fine satanisms of *Paradise Lost*, Emily Bronte, Melville, Tennyson, and, to-day, Eliot. For there are two extremes of intensity in this kind, leading to creations satanic and paradisal: and the most powerful liberating visions are usually found at these extremes. In Shakespeare we have *Macbeth* set against *Antony and Cleopatra*. Comparatively few poets, however, have left any full-length work of paradisal vision. Goethe and Shelley rise above the rest here, if we exclude Shakespeare and Dante. We have more "death" literature than literature of "life",

and our greatest works tend oftenest towards tragedy. Now Wordsworth is usually colourless and foggy, like his beloved hills; and when sonneteering, though sublimely flashy, he is seldom concerned with issues more vital to our hearts than political liberty. In his crowning poem, where these two styles are mated, that dark and formless thing which retroubled him through reams of interminable and often very blank verse, is incarnated in the world of colour, shapes, and symbols, and steps free, a living body, a new birth splendid in its life. This is, moreover, itself a "life" vision: one of the finest we have.

My purpose is to analyse briefly Wordsworth's Ode on "Intimations of Immortality from Recollections of Early Childhood". A bad beginning, it is true. Never was a great poem so clumsily introduced. But shortly we are in a world of blazing light and life: a pinnacle of creation comparable with Shakespeare.

II.

Wordsworth's Ode creates a vision of "immortality". Now that is a vague word, carrying dangerous associations. We most naturally interpret it into "life-after-death". This is legitimate, but only provisionally satisfying, since it involves the "time" concept and thus puts a weapon of scepticism into the hands of the Mephistophelian intellect. "Immortality" means "undeathliness". And "death" being the negation of "life", "immortality" may be equated with "life" itself, provided we remember that it holds suggestion of that which is hostile to life. We may therefore exactly render it as "Life victorious". Now all our greater poets are concerned in their grandest work with vast simplicities. Life, death, birth and love, are the pillars of Shakespearian drama. But the ultimate meanings in our poets will not be clear

to us unless we cleanse the glasses of our minds from all false associations and limiting irrelevancies. We must not here limit the word "immortality" to fit it to our own, often misguided, because so partial, conceptions. So, though Wordsworth's Ode, like Shakespeare's *Pericles* or Shelley's *Prometheus*, is a vision of immortality or life victorious, it has nothing to say about life-after-death. Rather, it expresses, indeed creates, a vision of essential life. The symbols which carry this over to us are flowers, springtime joy, bird music, young life, and, pre-eminently, the child. The child is clearly a more powerful symbol than any drawn from "Nature" alone: at a certain depth the human mind can only respond to a human symbol. And it is exactly this "human" symbolism that Wordsworth's nature poetry so often lacks; and on this is based much of Shakespeare's inexhaustible richness. Now the "child" symbol is important throughout religious dogma and the poets. The Holy Child is the very heart of Christianity. So, too, is the Child vividly important as the antagonist to the active Death in Shakespeare's play *Macbeth*, and in the life-visions of the Final Plays children are central from Marina to Elizabeth. Wordsworth's Ode is in this tradition. For once, Wordsworth is powerfully and magically human.

The "spring" references need not be emphasized: they are clear and obvious. But the "child" is so important that I note first its continual presence in the poem. "Early Childhood" occurs in the title, and at the head of the poem are the lines commencing, "The Child is father of the man". "Child" and "birth" images are frequent. The sunshine is "a glorious birth" (16), the "young lambs" bound as to the tabor (20). Youth is in the air, happy youth:

Thou Child of Joy,
Shout round me, let me hear thy shouts, thou happy
shepherd-boy! (33).

Again,

And the children are culling
On every side,
In a thousand valleys far and wide,
Fresh flowers . . . (45).

And,

The babe leaps up on his mother's arm (49).

We have a whole stanza (V) devoted to the slow fading of that glory we bring from birth:

Our birth is but a sleep and a forgetting . . . (58).

We trace the "growing boy" through his pilgrimage from life to death. Next Nature is the "mother" to this wanderer, he her "foster-child" (82). Then we have another long stanza (VII) describing the child at play:

Behold the child among his new-born blisses,
A six years Darling of a pigmy size! (85).

The whole description is vividly realised. Stanza VIII brings us to the grand invocation to Childhood in all its strength divine and immeasurable stature of triumphant life:

Mighty Prophet! Seer blest! (114).

The "little Child" is "glorious" in his immortal heritage, which is something indeed magic and mystic, far more wonderful than any platitudinous "simple creed of Childhood" (140). Then we are brought to a dream of paradise in terms of the "Children" who "sport upon the shore" (170). Finally, we return to our spring setting, the birds' song, "young lambs" (173), and the "new-born" Day (198). The poet envisages Life Victorious in terms of the Child. This is our approach to "immortality".

Now, besides concrete images of the Child we have the poet's references to his own childhood, its delight, its faded magic. At the start, we hear:

> There was a time when meadow, grove, and stream,
> The earth, and every common sight,
> To me did seem
> Apparelled in celestial light,
> The glory and the freshness of a dream (1).

The radiant happiness is gone. Now, beautiful as the world may be to him, the poet recognises a loss:

> But yet I know, where'ere I go,
> That there hath passed away a glory from the earth (17).

In Stanza III, he expresses sorrow that he alone should have shown grief amid the universal joyousness surrounding him. A second wave of poetic rapture floods on in this and the next stanza—then, again, the bitter remembrance alternating. A tree, a field—both speak of "something that is gone" (53).

> Whither is fled the visionary gleam?
> Where is it now, the glory and the dream? (56).

And then (V) he elevates this personal history of his own experience into a universal pilgrimage of mortality from birth, the fount of life, to life, the beginning of death.

The dawn-star of birth yet sets on the horizons of paradise (60). So that, "in infancy" there is, as it were, a heavenly blaze around us, within us. The original beam burns pure, casting its radiant purity on all things where its sight bends. But, as the years up-pile their leaden weight, the prison-house closes on the immortal birth, mortality lays heavy irons on the limbs and wings of life. Yet still the "growing boy" has a certain faculty of sight left him, and "beholds the light". Swiftly drawn from "the east", the dawn of life, he yet is "Nature's

priest" for a while. This "Nature" is, then, the transfigured nature of radiant vision—the "vision splendid." Finally, in manhood, the cold light of "common day" casts its pale sicklying eclipse on the dawn-fire downglimmering from birth—birth, which is not only the fiery origin but the very heart of life. Thus, in vague temporal terms, is fashioned roughly a storied philosophy which sets birth not primarily at the beginning, but rather at the centre of human reality, so that the child yet sparkles with the consecrated dews of the paradise he has left, whilst also slowly drawn down the dim corridors of mortality. And so, as a "life" symbol, "birth" or the "child" is in all our images here to be emotionally regarded as central to human life rather than its beginning. In so far as man is separated from birth, which is life, he dies.

Yet the poet confuses us with two uses of "nature". One is the "nature transfigured" which is indistinguishable from the antenatal glory, indeed itself the essential life of which that glory is an hypothetical abstraction, an intellectual aspect. But we also have quite another "nature". Earth is a kindly "foster-mother" to the divine life born to her arms: "yearnings she hath in her own natural kind" (78). So

> The homely nurse doth all she can
> To make her Foster-child, her Inmate Man,
> Forget the glories he hath known
> And that imperial palace whence he came. (81).

In these passages "natural" and "earth" are to be contrasted with the divine. This, then, is the "nature" of clouded vision: the nature of Wordsworth's manhood. Now, after the blazing central invocation which I inspect later, the poem again returns to this secondary "nature":

O joy! that in our embers
Is something that doth live,
That nature yet remembers
What was so fugitive! (133).

His days of "nature" are leavened and purified by these fitful recollections of the divine. Such memories bring him "perpetual benediction" (138). They take the form of

obstinate questionings
Of sense and outward things,
Fallings from us, vanishings,
Blank misgivings of a Creature
Moving about in worlds not realised,
High instincts before which our mortal Nature
Did tremble like a guilty thing surprised. . . (145).

Observe how here "sense and outward things" are "questioned". This is an intellectual falsification, in its way; the falsification at the heart of *The Prelude*. In the moment of child vision, "Nature" was itself the divine glory and the youth therefore "Nature's priest." Remembering the quality of that vision, without being able to re-experience it from direct contact with the actual, the mind is forced into an idealism which regards the other, lesser nature, as "questionable". The poet thus moves in formless worlds, traversing the wide spaceless vacancies of abstract recollection, without the creative power to fuse such vision-longing with immediate experience: the process so often evident in *The Prelude*. But his "mortal Nature," once the vision is gone, is truly a thing of meanness; and indeed a whole universe separates the one "nature" from the other. So these life-glimmerings, vague and fitful though they be, have yet tremendous authority, and are, indeed, in this poem given a fine, concrete expression:

But for those first affections,
Those shadowy recollections,
Which, be they what they may,
Are yet a fountain-light of all our day,
Are yet a master-light of all our seeing;
Uphold us, cherish, and have power to make
Our noisy years seem moments in the being
Of the eternal silence: truths that wake
To perish never . . . . (152).

The lights of that death-in-life which we live. They "perish never"; not subject to mortality, because, though "recollections", they are yet moments of victorious birth, existing immortal by the right of life to assert its power over any death; and so time itself, "our noisy years," becomes but a passing moment in the one vast immediacy of the eternal.

Our poem thus imagines the immortality in terms of (i) the child, imaged objectively as a thing enjoying its existence perfectly; and (ii) moments of vision, themselves to be related to the visions of childhood. The two alternate. Neither by itself is wholly satisfying to us or to the poet suffering his loss of delight. He can see the shepherd-boy in youthful happiness, but he himself is sad; he can remember his own one-time visions, yet they return but fitfully, and then in terms of themselves and vague, tremendous abstractions, rather than "nature," thus lacking a certain reality. The immortality will be most perfectly incarnated when these two approaches are married; when the poet's own desire is fused with an object, that object or image alight with the poet's immediate vision. Now our two aspects of immortality have been aspects of "childhood." Thus the heart of our poem is a passionate invocation of the child. Here the poet, as it were, falls into visionary love with his symbol, and majestically

creates the thing he has lost. The blending of styles which serves to give us great poetry throughout the ode is thus curiously repeated within its thought-structure. The poet mates his own "birth" visions to the "child" symbol; the elements are things of "life," and the technical process a true act of poetic "creation"; so that we have a sudden miraculous birth, a vivid poetic life sending its life-ray into the heart of life. The climax of the Ode rings out a prophetic and poetic splendour beyond anything else in Wordsworth. Nor has it been properly understood.

III.

This, the vital centre, is preceded by the stanza (VII), which carefully describes the child at play. It is vividly pictorial. Here we have a very human, childish child. The poet first studiously actualises the symbol with which his passion is to be fused; and indeed closes his grand invocation by again imaging the child in its expressly human actuality. In this invocation we have our vision of the Child as Immortality. Here the poet's symbolism inflames his poetry, his poetry ennobles his symbolism beyond natural boundaries of sense and reason. The white fire of immortality blazes out in this moment of created vision, and the lost immediacy, now incarnated in poetry, is recaptured in its full richness and splendour of actuality. The rest of the Ode, with all its vivid life imagery, is as the structure for this: this its towering height, its heart. To disclose it, the other stanzas, before and after, are unfurled like petals of a resplendent rose: in this we have the centre, the inexhaustible breath of Paradise. I quote it in full:

Thou, whose exterior semblance doth belie
Thy Soul's immensity;

Thou best Philosopher, who yet dost keep
Thy heritage, thou Eye among the blind,
That, deaf and silent, read'st the eternal deep,
Haunted forever by the eternal mind,—
Mighty Prophet! Seer blest!
On whom those truths do rest,
Which we are toiling all our lives to find,
In darkness lost, the darkness of the grave;
Thou, over whom thy Immortality
Broods like the Day, a Master o'er a slave,
A presence which is not to be put by;
[To whom the grave
Is but a lonely bed without the sense or sight
Of day or the warm light,
A place of thought where we in waiting lie;]
Thou little Child, yet glorious in the might
Of heaven-born freedom on thy being's height,
Why with such earnest pains dost thou provoke
The years to bring the inevitable yoke,
Thus blindly with thy blessedness at strife?
Full soon thy Soul shall have her earthly freight,
And custom lie upon thee with a weight,
Heavy as frost, and deep almost as life!

Of this there is much to say. I can only suggest a few ideas.

Coleridge did not like it. He did not understand it. This is what he said:

> Now here, not to stop at the daring spirit of metaphor which connects the epithets "deaf and silent" with the apostrophized *eye*: or (if we are to refer it to the preceding word, "Philosopher"), the faulty and equivocal syntax of the passage; and without examining the propriety of making a "Master *brood* o'er a slave", or "the Day" brood *at*

> *all*; we will merely ask, what does all this mean? In what sense is a child of that age a *Philosopher?* In what sense does he *read* "the eternal deep"? In what sense is he declared to be "*for ever haunted*" by the Supreme Being? or so inspired as to deserve the splendid titles of a *Mighty Prophet*, a *blessed Seer?* By reflection? by knowledge? by conscious intuition? or by any form or modification of consciousness?

Again, referring to the four lines which, following the Oxford Wordsworth, I have left bracketed:

> Surely, it cannot be that this wonder-rousing apostrophe is but a comment on the little poem, "We are Seven"?—that the whole meaning of the passage is reducible to the assertion, that a child, who by the bye at six years old would have been better instructed in most Christian families, has no other notion of death than that of lying in a dark, cold place? And still, I hope, not as in a *place of thought!* not the frightful notion of lying *awake* in his grave!

I have quoted from the *Biographia Literaria*, Chapter XXII. Now that is the kind of approach to poetry in which criticism too rashly precedes interpretation; or, put otherwise, judgment is independent of understanding. I cannot here defend Wordsworth in detail, though it would be very easy to do so. It is surely unnecessary; and, if necessary, certainly likely to be futile. Once we rise to the plane on which the poet addresses us, each phrase that Coleridge "criticises" becomes of apocalyptic power. Coleridge, for example, is quoting this stanza as an example of Wordsworth's use of "thoughts and images too great for the subject". Too great! Might he not have remembered Isaiah's, "And a little child shall lead them"? Or the Vergilian development of the same theme, often compared with Isaiah's? Or, "Except ye become as a little

child ye shall in no wise enter into the kingdom of heaven"? The thought of child-desecration called from Jesus his only words of utterly cold, unrelenting, and pitiless judgment. And in Shakespeare's most terrific play, the only force able to withstand the shattering world-quaking rampant Death is a little Child, victorious:

> What is this
> That rises like the issue of a king;
> And wears upon his baby brow the round
> And top of sovereignty?

If a grass-seed can split the foundations of a massive structured cathedral, is the mighty force of creation too slight a symbol of immortality? If the Kingdom of Heaven itself is first as a tiny mustard seed, what universes then of paradise, of earth, of hell, are compacted in the child? So, not any literature, nor teaching, nor even the "word" of God himself, must be the true centre of our religion; rather the Incarnation, the Birth of the Holy Child. So we may resolve our paradoxes by seeing the child as an expression, or symbol, of life. Either the paradox, or symbolism: they are often interdependent.

The child is the new-minted coin of life; its freshest currency, stamped with the impressure of the latest sovereignty of paradise. It is thus an "Eye among the blind," possessing sight; deaf, silent, passive, its very being is a light and a vision. So with all high visionary truth: it is not a knowing this or that, no statement nor hearing of a voice, but simply a "sight". For the eyes are ever the finest human faculty, in Shakespearian phrase, "the most pure spirit of sense." The child is a new birth, an awaking sight, another eye of life. So, in later years, we sleep and then we wake—in poetry, religion, music, love, in all ecstatic experience, we wake to quintessential life, which is our immortality. In that his very existence

is an awakening to life, the child is indeed as "a mighty prophet" or blest "seer." Nor is he on a "lower" plane. Wherever there is a birth, a sudden sight, a wonder and a newness and a spontaneous joy, there is life victorious. It is such a "birth" toward which we set our steps, in this world or the next, regarding in our highest visions the child

on whom those truths do rest
Which we are toiling all our lives to find,
In darkness lost, the darkness of the grave.

The child is life; the man, death. And because the child is a symbol of so vast a conception, greater than itself, itself emblematic of sovereign life, its "immortality" is said to "brood" over it like "the day"—a wide empyrean of light, overarching, expansive, illimitable: and of this the child is a "slave" or symbol, a momentary expression. Momentary, in terms of time, or logic. Yet when fused with contemplating passion, as here, the passion-child is immortality itself, the "child" being a "symbol" only when isolated, but actually blending with the poet's emotion and clustering imagery to create the mystery of which it is a shadow. Or, in terms of one of Coleridge's objections, that the child is in no valuable sense conscious of divinity any more than a tree or a ship, we may say indeed that the child alone has life, but not life fully conscious of life: but that that very consciousness the poet himself provides, so that his creation is both child in purity and man in experience. And in that mating of the symbol with poetic passion is ever created the greatest poetry; and by such welding of a childlike faith with profound experience have been forged the greatest lives on earth.

Consider the lines I have bracketed, following the Oxford Wordsworth; the lines which Coleridge so trenchantly and without any spark of imagination criticised,

except that he certainly makes some fine remarks on "splendid paradoxes" in general which are irritatingly irreconcilable with his misunderstanding of the poem which suggests them. Now we have just heard that our intellectual consciousness is "the darkness of the grave." Therefore our second "grave" must inevitably be considered likewisely metaphoric. The paraphrase of our bracketed lines runs thus:

> In comparison with which the grave of the intellectual consciousness is as a lonely bed of death, without any feeling or seeing of light or warmth, a dayless existence, a place of thinking where we lie in perpetual waiting.

The child is to be equated with the Eden of Genesis, and the intellectual consciousness, in the realm of the knowledge of good and evil, is Death. Beyond that, there is yet the Tree of Life, which makes gods of men: whither all high poetry, prophecy, and religion will direct us. Now what more pregnant images for the worst sufferings of our intellectualised existence could be found than these—darkness, the grave, loneliness, a continual prisoned waiting, continual actionless thinking. "Denmark's a prison": this is the "death" vision of *Hamlet*. So the Hamlets of this world are condemned by their very greatness to live a life of death, thinking in their graves. "A frightful notion," said the critical intelligence of Coleridge, disgusted. Frightful, indeed. And if we want further proof that this is indeed our proper sense, consider the conclusion of our stanza: where, the momentary spark of recognition beginning to fade, the poet returns to the sharp logic of fact.

> Full soon thy Soul shall have his earthly freight,
> And custom lie upon thee with a weight,
> Heavy as frost, and deep almost as life! (130).

"Earthly freight," "lie upon thee," "weight," "heavy as frost," "deep almost as life." What do these suggest if not the horrors of living burial, with the weight of the cold earth frozenly pressing on the thing sunk almost as deep as its existence: that is, all but irredeemably.

I conclude that Coleridge's criticism is based on a fundamental misunderstanding of this stanza, and, it appears, of the whole poem. The power of this visionary statement, or, at its centre, "creation," of life's immediacy presented in terms of child-symbolism, completely eluded him, fell on deaf ears. And yet Coleridge could write quite imaginative poetry. We must suppose the poet writes from a superconsciousness beyond the level of his critical thinking. Nor is this all. Wordsworth himself deleted the crucial lines. The Oxford note runs: "Found in edd. 1807 and 1815; omitted from ed. 1820 and all subsequent issues in consequence of Coleridge's adverse criticism." I have observed that this ode is on a plane above Wordsworth's usual poetry. Did he not himself understand what he had written? Did he, too, completely miss the whole point of the poem?

IV.

And so the ode dims to a noble conclusion, where the poet assuages his banishment from life eternal by vague intuition that in some sense the pilgrimage into mortality is necessary and just. With him, we must believe it so, or name the universe a medley and human existence a farce. But these thoughts are not our essentials here; or, rather, only important as circling routes to the summit, which is the centre. We must see the ode spatially, not merely temporally: that is, we must try to view its pattern simultaneously outrolled, the beginning and end but the framework, the outer petals, the centre its fiery

heart and perfumed well of life. And there we have our vision of the child, transfigured by poetry.

There are two main approaches to immortality in our poetry and religion. One is the synchronising of death with some excessive beauty, most exquisitely apprehended through erotic symbolism: this we find in Keats, Goethe, and Shakespeare. The other is the child, eminent in Shakespeare and Christianity. The erotic ideal is, in literature, the more universal, and hence Wordsworth's "Child" is peculiarly interesting. But, whether we find the Eros or the Child, we must see that these symbols make direct contact with "immortality" irrespective of the "time" concept. Life-after-death is a good and useful approximation in temporal terms, aptly related to the "Eros" symbol and suiting human aspiration. Possibly the Wordsworthian life-before-death is an even better, since it is more concretely parasitic on experience and, indeed, memory. Yet it, too, is but an intellectual mechanism epithetical to the "Child" symbol. Both are provisional and incomplete. The true immortality is actual and immediate, in its expansive immediacy, however, probably including, not necessarily excluding, the other vaguer conceptions. Hence our central invocation here is an immediate experience. And in so powerfully using so universal, so human, and so exact a symbol, Wordsworth shows himself a poet, at his best, comparable with Shakespeare. For the Shakespearian imagination ever employs direct and universal symbolisms which need no key nor esotoric instruction for their interpretation. Throughout this ode Wordsworth's effects are Shakespearian: the child, the lambs, the tabor, bird-music, springtime joy—all these are natural and obvious and easy to follow. So, too, is Wordsworth's picturing of paradisal joy a truly Shakespearian image:

Hence in a season of calm weather
Though inland far we be,
Our souls have sight of that immortal sea
Which brought us hither,
Can in a moment travel thither,
And see the children sport upon the shore,
And hear the mighty waters rolling evermore. (165).

Which awakes echoes of many passages in Shakespeare where the far delight is imaged in terms of dances by the seashore, as in Ariel's song, "Come unto these yellow sands."

The word mystic has fallen into disrepute: perhaps not altogether unjustly. For, when we experience the ineffable, we have a choice of directions: we can infuse this impulse into some religious orthodoxy, some art, or—perhaps most excellent—the good life. Or we can do none of these. For it may be given to us to know a transcendental experience without any corresponding tendency towards othodoxy, without technical skill in any art, nor any natural promptings towards the good life. To such, pure mysticism remains pure. But we must not write of it, unless we be willing to embody it in formulas, symbols, images of some sort, so recreating the immediacy of contact with "nature" from which the original fire was kindled. Too often we find mysticism of the type Wordsworthian at its worst, which tries to describe the ineffable instead of creating it. Once Wordsworth rose beyond this, and spoke with a splendour of utterance that makes his ode one of the great prophetic documents in our language. A study of it is most important to-day when the concept of immortality is so often misunderstood, misrepresented, or neglected; and when it is, moreover, so urgently necessary to charge our theology, our poetry, and our actions with a new sense of life victorious.

A WRITER'S CLASSIFICATION OF WRITERS AND THEIR WORK

FREDERICK PHILIP GROVE

I

NOTHING is in itself either beautiful or ugly, but seeing makes it so. I believe it was Croce who first said that or something to the same effect. It is undoubtedly true that we see beauty to-day where two or three centuries ago few people saw anything but horror or ugliness. The Alps of Europe furnish a convenient example. Creative minds had to see and to interpret that beauty for us before we could see it. They saw harmonies where previous observers had seen confusion; they saw significances where previous observers had seen chaos; and mankind at large has learned from them. What they actually did was, of course, an act of interpretation. In other words, they arranged these mountain landscapes in conformity to human predispositions: and lo, terror became awe; the desire to close one's eye became unconscious selection: the result was picturesque perception.

Picturesque perception of the kind hinted at is a special case of a wider phenomenon which I venture to call creative perception; and it is the purpose of this first section of the present article to elucidate what I mean by the help of a figure of speech. It is my fundamental belief, as I have more fully explained elsewhere, that all our precious knowledge consists in metaphors which are designed to make the universe around us capable of being grasped by the constructive imagination. Truth, as again I have said elsewhere, is what we can grasp. So, in the general dearth of aesthetic insight, I may be pardoned if I attempt to break new ground by labouring a

perhaps rather crude figure of speech in order to find some approach to obscure phenomena.

What, then, any person sees when looking at a simple object, as, e.g., the flower-vase on my desk in front of me, is in itself a construct arrived at by the unconscious comparison and composition of two separate images. It is only by this process of comparison and composition that we are enabled to see things with the proper distribution of their parts in space or, as I shall call it in the sequence, "plastically"; this word I use in the very sense in which the plastic arts are distinguished from the graphic arts. You can walk around a statue and look at it from all sides; but even if you look at it from only one point of view, you remain conscious of the fact that the various parts of it are not represented in a single plane. We cannot, so, walk around a painting, no matter how skilfully the painter has tried to force upon us the illusion of plastic vision.

To apply our figure of speech we may explain what is involved in ordinary plastic vision. In judging the relative distances from the eye of parts of the same object, complex processes of induction and deduction are employed which, in the case of objects within the range of ordinary vision, remain unconscious only because, with the help of a lifelong experience, they are carried on with lightning speed. Whenever the object looked at is either farther or less far removed from the eye than the distance which I have just loosely called the range of ordinary vision (and which varies considerably according to the variation of many factors), that ability fails us: sun and moon we see as flat disks instead of as hemispheres; we need a conscious, and that means an unusual process of deduction and interpretation in order to decide which of two ships just within our horizon at sea is the nearer and

which the farther from ourselves; provided, of course, that it has not been, for long periods, our business to arrive at such decisions quickly: in other words, the greater, in any given decision, the extent of our previous experience has been, the less time will the process of deduction and interpretation take and the less shall we become conscious of it.

Now it is a familiar fact that, within the range of ordinary vision, we see a different aspect of any object according as we look at it with our right or our left eye; and it is no less well known that, the farther the object within that range is removed, the more nearly will the two images be alike, till, when the distance exceeds that range, they become identical. Ways and means have been found to increase the range at which, by using both eyes at the same time and artificially increasing the distance between the points from which they look, we see objects plastically. If it were possible—as, no doubt, it will be some day—to combine, in one human vision, images seen, let me say, of the constellation of Orion, from points separated from each other by the diameter of the earth, then that vision would, at a glance, see the various stars composing the constellation in their true distribution through space, not only in a graphic sense, or as that distribution is at right angles to the path of the light proceeding from those stars, but also plastically, or along the radii of vision. In other words, a very complex process of computation in spherical trigonometry will be reduced to an act of spontaneous and instantaneous perception.

If what I have said about the importance of the fact that our two eyes do not occupy the same point in space, is true, how much more would it not be true if two distinct observers looked at the same object and were yet able to combine, in a single mind, the process of interpretation

of what was seen by the two separate sets of eyes. I lay special stress on the process of interpretation conducted by a single mind: for a mind able to do just that, by some mysterious gift, I contend, has what I call creative perception.

So long as the interpretation is carried on by two separate minds which are served by separate sets of sense organs, the best we can hope for is the combination of these interpretations by a process similar to that used by spherical trigonometry in interpreting two observations made from antipodal points of the globe.

If, instead of limiting ourselves to the observation of a single object, we admit as the object of perception complex sets of facts or human relationships, such a process of interpretation of separate observations by a third mind, and the consequent computation of their relative merits, is, by the way, nothing uncommon in daily life: it is the function of the judge or the jury in our courts of law; two people or groups look at the same set of facts or human relationships and cannot agree; they refer the case to the arbitration of a third person whom they supply or are presumed to supply with all the data of their own perception and whose task it is to interpret the two different aspects in the perspective of the law.

Now let the things looked at be as complex as they can be: let them embrace any two or more sets of data in the infinite number of combinations or permutations of human relationships; till we arrive at the vast complexity of human life which forms the subject matter of artistic creation, at least in narrative and dramatic art; and we arrive at once at a critical distinction between at least two sets of artists or writers.

For this is the strange thing about it that every observer of any such complex set of circumstances as is

presented by any aspect of human life almost invariably thinks the aspect seen by himself, not only the one correct aspect, but also the only morally justifiable one; he, therefore, quite conscientiously condemns the man who sees a different aspect, not only as blind to obvious truth, but also as morally perverse: as not only unable but unwilling to see what is so clear to himself.

Similarly, there are among writers of narrative or dramatic works of art those who refuse to see the conflict (for every true work of narrative or dramatic art deals with some forensic case) which forms the object of their narrative or drama (I intentionally do not say "subject") from more than one point of view—that point which is usually the one of their "hero"; and, on the other hand, there are those who see this conflict simultaneously from the points of view of all concerned.

This distinction might perhaps be expressed in a somewhat naiver way thus: there are writers who look at human life from the moral point of view (their hero being the representative of morals); and there are writers who look at it from the purely artistic point of view (which would be the creative way). Tentatively I have, in a different context, called the former group romanticists; the latter, classicists (for the word "realist" has, in Anglo-Saxon parlance, assumed a narrow and misleading connotation; though, strictly speaking, it would be the better term).

In trying to determine (quite internationally, of course, and with complete abstraction from domestic conditions; for, as far as the general public goes, Canada is a non-conductor with regard to any kind of spiritual current)—in trying, I say, to determine the trend of present-day art in narrative and dramatic literature, I have come to the conclusion that we are slowly once more approaching a

period of classic art. It goes without saying that there is much in the world's literature which does not admit of a rigorous classification in one or other of these categories. Shakespeare's work, e.g., is a mixture of the two kinds: Percy Hotspur and Henry IV are differentiated classically; Edgar and Edmund romantically. But that does not affect the validity of the fundamental distinction which depends on the analysis of work at either of the two extremes: let me say of Scott and Aeschylus if I may eliminate questions of rank for the moment; Aeschylus, e.g., in the Oresteia where Clytemnestra commands throughout as much of our sympathy and understanding as Agamemnon, Cassandra, Electra, Orestes.

By this time we have reached a point where our initial figure of speech—that of the actual observation of objects by means of eyes removed from each other to a more or less considerable distance—ceases to serve as a clarifier of thought. For in moral vision the observing organ is not a mere eye, alike in all, at least in kind of vision (though not, perhaps, in the degree of accuracy with which it sees), but itself a whole moral complex and organism with likes and dislikes, passions and powers, blind spots peculiar to itself and similar perspicacities. Above all, every human being sees the human world surrounding him in the perspective of his own experience of life; just as the judge is at least supposed to see the matters at issue between contending parties in the perspective of the law.

Nor do we look, through the medium of narrative or dramatic art, at mere objects which release sensations and emotions in the beholder. Conflicts, such as form the subject matter of narrative or dramatic art, are conflicts between human beings or between human beings and sets of conditions and circumstances created by human beings.

And human beings are our kin and, in life, our friends or enemies, our rivals or helpers, our admirers, perhaps, or detractors. No doubt there has been a time in the evolution of mankind when one human being was to the other little more than an object; just as to-day animals are to many men, less highly developed than others, no more than objects. But by a long and painful process, by no means ended, a good many men have come to see a common substratum of humanity in all of their brethren: and in this process art has played a far from subordinate part. After all, as Longinus puts it, "it was art that has made gentle the ways of the world."

Yet the fact of individuality remains. In life, it dominates our relation to the surrounding world of men; we hear only their words, which are not our words; we see only their actions, which are not our actions. But it is one of the functions of art to break through that barrier of individuality and to make us understand: to show up that common background of humanity—or, as we may metaphorically call it, "the divine"—in even those who, seen superficially, seem farthest removed from ourselves because we did not happen to live under the circumstances under which they lived; because we were not burdened with their heredity; because, perhaps, we were not exposed to the same temptations; because ours was a different *Moira* or "share of life," and therefore a different destiny.

Now it is the artist's task to understand and to make us understand; and, therefore, the rank of the artist is necessarily conditioned, among other things, by the range of individuals potentially contained in his own common humanity; or, to fall back on our initial figure of speech, by his ability to shift the point of view from which he sees, with at least one of his two eyes, to that point from which

other individualities look upon the circumstances conditioning a given conflict. This has been expressed by saying that the dramatist or novelist must successively feel with, think with, act with his various "creations": he must successively "be" every one of the characters whom he presents to us. This, it has also been said, will be the easier to him the less he is himself individualised; the more nearly his whole being coincides with the common substratum of humanity (or divinity) which pervades us all; that is, so they say, why, in life, the artist is so rarely what is called a strong character; or one who sees the world and acts with regard to the world as though he were he by divine right, entitled to impose himself upon a reluctant environment and to force it to adapt itself to his demands upon it. That is also why the artist, the true artist—not the sham variety so common all about us—so often finds himself unable to cope with the ordinary problems of life, as, e.g., that of earning his living, in spite of the fact that, on the other hand, it is the very reason why, in a well-ordered civilisation, he is an indispensable factor in the life of the commonwealth, one with which only immature civilizations think it possible for themselves to dispense.

But, of course, no artist ever is completely merged in the common substratum of humanity. If he were, or rather if any two of them were, the individuality of their work would also disappear; and, apart from accidental differences in subject matter, their work would be indistinguishable.

No true artist of the first order will ever emphasize his own individuality: it will pervade his work in spite of himself; and, strange to say, by his very failure in completely merging himself in that substratum, he adds a new interest to his work; for, after all, it is a fundamental

peculiarity of that common substratum of humanity that it "appears" never as a "pure culture" in the biological sense, but only in the disguise of individuality. Yes, more; it is precisely through this disability of the artist that he becomes truly creative.

Let us take a concrete example of a conflict enacted between two characters who are at issue because each is wholly individual. Let us take Agamemnon and Clytemnestra. Let the artist be Aeschylus, that is, an individual who fought at Marathon and whose significant life was lived between 499 and 456 B.C., now at Athens, now in Sicily. Let us suppose, as Aeschylus' contemporaries probably supposed, that Agamemnon and Clytemnestra were historical personalities who had had their actual being at the time of an actual Trojan war and between whom a tragic fate enacted itself. According as we look at the conflict brought about by that fate (that is, by the reaction of character to a given set of circumstances and events) from the point of view of Agamemnon or from that of Clytemnestra, we side for or against one or the other, and we feel that one or the other was a hero or a villain; one or the other was human or inhuman; we can never inwardly participate in, or be reconciled to, the fates of both at once. Life consists of judgments; without judging, all action would cease; but while we are under the influence of art, that judgment is suspended, and, if art is a potent factor in the life of the spectators, some tempering of ordinary judgment is carried beyond the brief spell of art's direct influence. In the first part of Aeschylus' trilogy enough is said, though only just enough (and that is the artificial part of the art in it) to make us understand, and sympathize with, both these great characters. Neither is such that our sympathies readily flow out to it (and this is one of the great secrets of the

powerful effect of tragedy). But both are fused with Aeschylus himself in such a way that we look simultaneously at the issue between them from both their individual sides, seeing it, to revert once more to our initial figure of speech, "plastically" as a cosmic event in which human lives are ground up: similar to other cosmic events all of which are in a very deep sense symbolical of human life as such—of a life which, though one and the same in all, yet, as it were, ties itself up in the knots of individual destinies. The common substratum lies dormant in the characters who can not see beyond themselves; it lies dormant, but it is there: and Aeschylus calls it Zeus, that Aeschylean Zeus who learns by suffering, and the truth of this statement remains unaffected even if we presume that Zeus was to Aeschylus, as an individual living his significant life in the first half of the fifth century B.C., a personal god who had his dwelling on Mount Olympus in Thessaly. In other words, Aeschylus had looked at the data which legend offered, and he had perceived them creatively.

II

I will now shift my ground entirely and look at the same problem (more or less) from a different point of view, drawing some conclusions from my data.

Unfortunately, writers are also living human beings, not gods placed outside of life and endowed with the power of making men's souls transparent. One understands that I am speaking of writers of imaginative literature only: of epics, lyrics, drama, and of prose narratives such as we call "novels". In order to make clear why I group these various, heterogeneous types together, opposing them to writers on history, science, and other subjects which have to be approached, at least in part,

by the reasoning faculties, it may be well to state my belief that all art which is truly art has an ultimately lyrical aim: that is to say, only where that lyrical aim can be clearly traced—whether it be in a work of fiction, of the arts of painting and sculpture, or architetcture, or of music—do I acknowledge that the result is entitled to be classified as a work of art instead of being the product of a craft. In just what that lyrical aim consists may be a matter of controversy. I have expounded my personal view elsewhere, and, for reasons of space, do not intend to enter upon the question here.

Writers, I said, are "unfortunately" also human beings: unfortunately for themselves, not necessarily for those connected with them in daily life, and not at all for those who read their works. Whether, for the outer universe, we accept the hypothesis of a benevolent creator or not, the only purpose of life that we can discover is that it be lived; but if life were simply lived as the vegetative and animal creation lives it, it would resolve itself into a succession of generations without history, science, or art; and the slow evolution of mankind, if such there be, has precisely proceeded through history, science, and art. Besides, there is this contradiction in any theory of life as a purely mechanistic or vegetative process that the differentiations of pain and pleasure have led within life and, therefore, within nature, to a fundamental criticism of values which, in turn, has led to the position of many "ifs"; and thus life, itself created, whether by a personal creator or by such processes as evolutionary science tries to trace, has become creative in turn, though the word creative here assumes a somewhat modified sense. Whether we approve of it or not, creative it is to-day. Creation, however, means at bottom simply a reconstitution of given elements in new combinations. Even in

Genesis there was chaos before the creative process began. But the creator's position is, there, imagined to be outside the elements from the recombination of which he fashions the new creation. Where, on the other hand, man becomes a creator in an artistic sense (that is, where the writer is a great writer; and the same applies to all other arts though it is, perhaps, harder to trace the process in arts other than literature), the trouble is that he himself forms at least one of the elements out of which he creates: in fact, every single element which he uses (be it an element of sensation, emotion, or pure observation) assumes, in art, its significance only by that relation to the central ego which gathers them and recombines them, tinged by that admixture of itself. It is in this very circumstance that the ultimately lyrical nature of all art at bottom resides. Now the process of life consists fundamentally in a passive or active reaction to all that is not "I"; and certain philosophies would reduce even the active reaction to a passive one, denying free-will. The "I", in life pure and simple, remains, at any rate, almost unconscious of itself, except in as much as all reaction is either pain or pleasure or a combination, in varying proportions, of the two. But the process of artistic creation, as I have pointed out, consists in a conscious or unconscious relating, of everything that touches the creator, to his ego; in a reconstitution of its elements with himself as one of these elements. That we do not know just what this ego is, need not enter into the discussion. At any given moment of creation the artist treats at least part of himself (mysterious as that "himself" may be to him) as something objective and outside of himself, as though it were matter of observation. In other words, he reconstitutes himself, as it were, in two planes, one of these reconstitutions watching, the other watched. With regard

to all his reactions he has, in a sense, lost his innocence; and thus the spontaneity of life is lost to him: a tragedy which all great artists have, at one time or another of their lives, profoundly felt as a curse afflicting them.

In the artist, the very process of external observation is vitiated. Let an artist and a trained reporter listen to a conversation and write out what they have heard. Let them both do their best to reproduce what, in such a conversation we may, for the present purpose, call nature. And compare the results. The artist, so the average critic will say, saw and heard more than the mere reporter. In reality, it is very likely to be the other way around. But the reproduction of the artist is certain to be richer in connotations: it carries the utterances of the conversants to their final conclusions; it interprets gesture or expression of face or hands; *not*, it needs to be said, in the sense of the conversants; but in the sense of himself, or of a third being mysteriously come to life, as though he and either or any of the conversants, at each successive moment, had become one and the same person, or rather a person which might be the resultant of a subtle mixture of their two essences.

Incidentally, it might here be noted that, the farther this process of a subtle replacement of at least part of the personality observed by the personality observing goes, the more we approach, in the resultant reproduction, to a truly creative process and to an art which I would call classic, in contradistinction to an art which, correspondingly, I call romantic. That is the reason why romantic art, in narrative, knows angels and devils, whereas in classic art both sides to a conflict (and a conflict of one kind or another is the inevitable theme of narrative as well as dramatic art) are right because both are human and, therefore, more or less cognate to the artist; and why,

in Milton's Paradise Lost, e.g., Satan engages our sympathies: he is as much of Milton's fibre as Adam or God. That is also the reason why Dickens' "charming" young ladies fail to charm us, for Dickens, being at bottom a romanticist, failed to make them human or to mix into the stuff of which he made them some of the ingredients of his own coarser nature.

From what I have said, writers, then, may be classified according to the share of themselves which they put into their creations. In all creations of the great writer that share will be considerable; and the greater the writer, the more various will be the creations which he thus shows himself able to fuse with himself. The greatest of writers will be man, woman, and child at the same time; god, angel, and devil; and they will live simultaneously in youth, in the prime of life, and in old age; in poverty and wealth, power and impotence.

But the share of themselves which they put into their creations will vary even within their own work; occasionally it will vary through very considerable gradations; and according to these gradations the value of their work will vary. Thus, strange to say, the strong personality, the one that, in his life, aims at nothing less than a complete conquest of the outside world and of himself: the objective, highly disciplined, much embracing personality (Goethe, Shakespeare) will produce work the value of which is almost directly proportional to the degree in which his own intensely human and subjective nature penetrates it, perhaps in spite of himself. It takes very intense emotions to stir such personalities to their depths so that they surrender themselves to that fusion of which we have been speaking. But once they are stirred, their souls glimmer and shimmer in a thousand colours never seen by mortal eye before; and the result is a Hamlet, a

Lear, or a Tasso or Faust. Then they succeed in revealing to us lesser men hidden potentialities of ourselves and of human life, and they enlarge our own personalities by enforcing in us a fusion of ourselves with their own "*Erlebnis*" (a Goethean word so charged with Goethean meaning that it has become untranslatable by the colourless English word experience). Whereas others, of the second order, more readily swayed themselves, but nearer the surface (Heine or Shelley), rise in power, the greater the share of the objective world becomes in their creation. Occasionally we find an artist who, like Ibsen, produced work of *his* first order (though, as a personality, he may rank considerably below such encyclopedic beings as Goethe), no matter whether in that fusion of object and subject (to use these outgrown terms) the one or the other prevails; and the reason will be clear in a moment.

I have indicated my belief that the life of the creative artist is fundamentally different from that of the non-creative person that merely lives. In order that art may live, the artist must, at least temporarily, die to life. That, by the way, is one of the reasons why it is dangerous to live with artists: to the artist, everything and everybody they come in contact with is neither more nor less than what we may call, very imperfectly and almost indelicately, a model. But though an artist is, in a sense, always an artist, he is so, at different times, in varying degrees; and consequently he is, at different times and in varying degrees a non-artist and lives the life of ordinary folk. The more intensely he does so, and the longer the periods he does so, the greater will be the volcanic pressure, the eruptive vehemence with which he creates when the degree of saturation with life at last forces him into the process of creation: the time will come when, whether

he wants to or not, he *must* create. The "it" in him, whatever it be which forces him to create has been at work all the time, unsuspected even by himself; and suddenly, like a flood, it forces its way, perhaps bringing ruin to the landscape and the human habitations that have grown up along its hill-slopes. Thus Goethe left Weimar and Frau von Stein. The creation takes on an uncanny life of its own, like a child in gestation, with rights of its own, rights so imperative as to impose themselves on the creator. A book produced under such circumstances is what I call a book that "has grown": it will always outrank, in any scale of ultimate values, any work produced under circumstances of greater control. It will, perhaps, show flaws; and dead matter may be embedded in it. But it will carry those flaws and that dead matter as a flow of lava may carry whole masses of unfused rock or debris which it has swept before its onset.

Such are the greatest works that constitute the true classics of all times and climes.

There are other great works, near-classics, that were not grown but made. By far the greater part of what constitutes the world's abiding literature consists of them; and there are two ways in which such works may originate.

In the first place, the great artist has, as I have hinted, his periods of uncreativeness. Suppose such a one has ordered his whole external life with a view towards creation. When his truly creative powers have gone into a sort of hibernation, he will feel as though all meaning had gone out of his life, as though he were living in a great void; and almost unconsciously he will search for something to write about. If his art be that of narration or of the drama, he will perhaps take to a more intensive observation of the life about him and will there find the conflict which he needs to exercise his plastic

powers on. If he be sufficiently great as an artist, he will bring about an artificial fusion between himself and such characters as figure in that conflict, till they are imbued with a semblance of life sufficiently striking to impose themselves on reader, hearer, or spectator. There are rare cases where such a process of artificial creation is so successful as to deceive all but the finest critics. There need be no false note left in the product; but the real critic will detect a subtle difference between the work that is "made" by such an artist and the work that has "grown." Some last fusion is missing; some last power, therefore, of carrying away the reader, surface and subsoil and all. Thus Ibsen created his "Hedda Gabler," whereas the same author's "Ghosts" was "grown." It might be well to add that other artists (the greatest among them) are apt, in such periods of dormancy, to produce the utter inanity, the hopelessly mediocre and uninspired; and that for the very reason that they have never ordered their external lives with a view towards that creation which has always overtaken them like a catastrophe—as, so it often seems to them, a *by-product* of their lives which, to themselves, becomes the redemptive factor of their existence only in their old age when, to their own surprise, they become a problem to themselves, so that they speak and almost think of themselves in the third person: the case of Goethe.

In the second place, there are those who are in love with art and yet are not, fundamentally and by a psychological necessity, artists. Let me mention Lesage or Walter Pater or Gustave Flaubert. In their productions, these are inevitably stylists. They scrupulously avoid the trite (which the great artist imbues with a new life); they will never fall to the level of the mediocre; but neither will they attain the heights. They are the only

ones among those that count who are at bottom capable of "objectivity". They are often clever (the great artist never is, just as a mountain-range is never clever, though a landscape-garden is nothing unless it is cleverly done). They may offer us an entertainment of a very high order; but they do not write the last chapter of Hardy's Jude nor the second fragment of Sappho; they do not even reach out for an Eroica or such lines as "Lasciate ogni speranza voi ch' entrate".

And there it stands: one has the choice whether he will live among the peaks of mountain ranges or in the pretty walks of terraced gardens.

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Subscription $2.00 per year.

Books for review and correspondence with regard to contributions to the REVIEW should be sent to the Managing Editor at the University of Toronto Library, Toronto 5, Ontario.

Subscriptions and all business correspondence should be sent to the publishers

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TORONTO 5, ONTARIO

The UNIVERSITY OF TORONTO QUARTERLY

PUBLISHED IN

OCTOBER, JANUARY, APRIL, JULY

Editor: PROFESSOR G. S. BRETT, M.A.
Business Manager: R. J. HAMILTON, B.A.

Editorial communications should be addressed to the Editor, University of Toronto. Articles for publication will be considered promptly and paid for when published.

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